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"PRACTICE WITH THEORY AND SCIENCE!"

NUMBER 88.

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VELVET CHAFF WHEAT.

In the FARMER of September 12th there appeared a communication from a Genesee County farmer on the methods employed by some parties who were selling this wheat, or what they asserted was Velvet Chaff wheat, in disposing of it. That part of our correspondent's letter in which he points out the utter folly of a farmer giving half his grown, we fully agree with. It is paying very dear indeed for the wheat, no matter | timber, compared to the whole surface of a | the party had first choice. how valuable it may be. But our correspondent we think is in error regarding the importance among the influences which Evans Brothers', being the choice of 130. purchased under that name was so. We did | cal as that may appear. think our correspondent has the Silver Chaff instead of the Velvet Chaff, which would the names has misled him. We have had last year, and also a sample from Purdue University, Ind., and in each instance it was a red wheat, reported as bearded, with a medium sized plump berry.

QUANTITY OF SEED TO THE ACRE.

[From Experiments made at Purdue University, Ind., by W. C. Latta, Professor of Agriculture.

Experiments in thick and thin seeding have been carried on four years at the college, in a dark, heavy, well-drained soil of average fertility. The ground has been uniformly well prepared, and the seed has been sown from the 20th to the 25th of September each year. Fultz seed was used the first and second years, and Velvet Chaff the third and fourth years. A duplicate series of plats was also sown to Michigan Amber last fall. The winter of 1883-84 did not damage wheat seriously at the college, but those of 1884-5 and 1885-6 were very injurious, especially to thin seeding. Last winter (1886-7) was unusually favorable.

The first table gives the yields of the two series of plats in 1837. The second table gives the yields for each year and the average for the four years. The yields for 1887 in the second table are the averages of the Michigan Amber and Velvet Chaff rate plats.

TIELDSCOP RATE PLATS, BUSHELS	PER ACRE, 1837.
Seed sown per acre.	Velvet Mich.
Four pecks	36.4 29.9
Two peeks	31.0 23.6
Three pecks	34.2 23.6
FOUR Decks	87.4 80.8
Five Decks	37 7 32.5
DIA PECKS	38.1 34.9
rour pecks	86 8 32.9
Seven pecks	87.9 88.6
Eight pecks	87.8 85.1
Four pecks	34.2 32.0
AVPRAGE WINE DE CONTRACTOR	

Seed sown

| Para re. | Para re.

*Average of four duplicate plats.
†This column gives the averages of the Velvet
Chaff and Michigan Amber rate series.

The seed used in these experiments has been plump and sound uniformly. The sowing has been done with the twohorse drill, and the conditions have been favorable for the full germination of the seed. The results thus far obtained indieate the desirability of thick seeding, when the conditions are similar to those above most marked when the crop passes through growth of the thickly sown wheat acts as a ing alike.

A REVIEW.

minds of Michigan agriculturists. The ex- failed to raise corn this season. tended dry weather coupled with excessive heat, has left its mark on the State in barwould have been green with young clover. This will be felt another year more seriously | yield. than this, when the seeded fields are weed. ed for the season's crops, which will THE TURNER AND CROSBY IMmaterially reduce the area of meadow and pasture lands. There has been no immunity from the disaster. The best farmers, with all their sagacity, are as severely stricken as the slackest specimen in the community. Had the dry period been shortened one-half, there would have remained a part of the seeding, and that the best part, or that sown on the best prepared soil, but the wound, unlike that of the old Roman warrior, has been wider than a church door, and deeper than a well; it has been complete, and there are no lessons left to point forestation and drainage are the favorite causes assigned for a lack of summer rain, but why the adverse influences should not be more continuous for the whole season's round, there is no attempt to explain, or why the calamity should spread so univerinfringements are going on, to point the in the northern lake shore counties, where not one acre in one hundred of the timber has been cut, the drouth was severe the season through, while here in the south part of the State, where forest lands are the exception, there was no long period of dry Rector is the sire of many prize winners. weather. I believe there is no greater de- Then three others, one two years old, and gree of moisture arising from upland forest two yearlings, are from the celebrated flock areas, than from cultivated surfaces. It of A. E. Mansell, and ten others from the has been found by a careful test that moisture is continually arising from parched ings, Barchurch; five others from the flock surfaces of earth, and is in proportion to the heat of the sun, and the state of the atmoscrop to pay for the seed from which it is phere above it. The area of low moist lands that have been drained or been denuded of stance, as well as in the case of the ewes.

is a smooth white wheat, or at least what he opinion a drouth is its own cause, paradoxi- recent auction sale of a lot from this flock not notice this point until after it was A parched surface has a tendency to repel and their ewes almost six guineas, accordprinted. The Velvet Chaff is a bearded red | the forces which produce rain. There is alwheat, with a berry of medium size. We ways the danger that a dry spell in summer There are 20 ewes from the flock of Mr. will continue to the extreme beyond which John Bowen-Jones, President of the Engthe ordinary forces of the air have no power lish Flock Book Association, 15 from that anwer the description, and the similarity of to break. The broader the area of parched of Mr. Thomas Dicken, seven prize-winearth, the greater the power which is needed ners from the celebrated flock of Mr. J. E. samples of Velvet Chaff grown in this State to overcome its influence. There is at no Turner, of Ludlow, and a bunch from the time a lack of moisture in the air. It can- flock of Thomas Jones, Esq., of Wellingnot accumulate in excess, nor diminish and ton. dissipate entirely. It's maximum does not | Every sheep purchased was landed in exceed five inches of rainfall at any one time, and the incessant up-rising of moisture from the sea, the lakes, rivers and and four days on the Grand Trunk Railway earth's surface everywhere, is not intermittant but constant. Its descent in the form a journey the sheep looked remarkably of rain is not likely to be influenced simply | well, and can be put down as an exceptionby patches here and there of denuded or ally well bred and handsome lot, cre itable drained land. The upper currents of air, to their breeders and the parties who selectwhich are the parents of rain, are doubtless ed them. There are two rams in the bunch independent of any change at the surface of that are grand ones. The two-year-old ram the earth which the hands of man can Rectory Hero is a great sheep in every way effect, but there is an interchange of affinity between the earth and the sky, not clearly understood; this is a field for fruitful invest-

repellant or attractive without the aid of

this subtle force.

Even in the dryest time of the past season, the forces of the air at recurrent intervals, made attempts at rain. If the forces of earth and sky had been at equilibrium, the rain force would have given us a shower. It was not that there was not sufficient moisture in the air to produce rain, for often the sky was overspread with clouds, but their cumulative force was insufficient and they were dissipated, or driven with the wind, unable to cohere into drops of rain. These efforts at rain, recurring at regular intervals of about seven days, have given rise to the foolish assumption that it is by the moon's leave that rain clouds form, and that the "changes." which occur once in seven days, let loose the forces which produce them. I by chance there should be rain at one of the quarterings, the next storm, or indications of it, would occur on the next quarter, but unfortunately for the rule, the first storm is as likely to occur exactly between these "changes," and the later ones follow in that order, as they have done lately. The rule is quite elastic, as held by "luna" people, for they say the storm is governed by the change which comes nearest to it. The foolishness of this notion is too absurd for farther argument against it, and I should not have taken space for its consideration except that so many farmers have a lingering faith in the lunacy, that ought to be

cured in every intelligent-community. The slight degree of moisture which wil serve to eke out the corn crop to fair proportions, is shown by such fields as border on low lands where rains have been prevalent. I found a field yesterday on a cold named. The advantage of thick seeding is quicksand bottom that had been plowed out but once, which will give a good a severe winter. It appears that the dense | yield of large, sound ears. Some beans on though not a large growth. The season was at its best on such soil, giving great heat mulch, protecting from freezing and thaw- though not a large growth. The season was

with sufficient moisture to keep the corn growing. This exceptional yield on a very The active labor of the season is past; ere barren soil and slack cultivation, will be this is spread before the readers of the pointed to by all the mossbacks in that FARMER, the bulk of next year's wheat section, as proof that corn does not need crop will be sown, and left in Nature's cultivation more than once in the season, hands to perfect the harvest. The season and the owner will get a lift into notoriety just passing will be a memorable one in the as the peer of those-fancy farmers who Our first heavy dashing rain fell yester-

day, the 12th, but the ground needs more ren fields that, but for this extreme drouth, still to start the grain into a more vigorous growth and to help potatoes to a better A. C. G.

PORTATION OF SHROPSHIRES.

We have before referred to the importation of Shropshires made by James M. Turner, of Lansing, and the Crosby Brothers, of Greenville, Montcalm County. Last week we had an opportunity of looking them over at the Turner stock farm, in company which had received the best care, or been with Ben B. Baker, Secretary of the Central Michigan Agricultural Society, who is much interested in sheep generally. The day we were at the farm the stock was being divided so as to ship a part of them to Greenville, so the whole lot were present. One of the to as a precedent for future guidance. De Crosby Brothers, Mr. G. W. Phelps, of Okemos, who represented Mr. Turner in the purchases, and Mr. Woodman, superintendent of the Turner stock farm, with the assistance of a young Englishman, were engaged in the work of selecting, The importation consisted of three two year old rams, 17 sally, and not sort out the spots where the yearling rams, and 102 yearling ewes. Of the rams two were purchased from the flock unwisdom of such proceedure. Last year, of Mr. John Darling, Beaudesert, Staffordshire, namely, Rectory Hero (No. 3194), and The Primate (No. 3274). They were sired by the royal prize winner, The Rector (No. 1769), for which Mr. Darling paid 200 guineas for the service of 50 ewes. The renowned flock of Mr. Thomas, The Buildof Mr. Thomas Dicken, of Ellerdine, Wellington, Shropshire. All these rams were selected from large flocks, and in every in-

State, is so small as to be of very slight The ewes consist of 20 from the flock of wheat referred to. He says the Velvet Chaff determine the amount of rainfall. In my their entire crop of yearling ewes. At a 40 rams averaged 29 guineas and sixpence,

> good shape. They were eleven days on the steamer, six days in quarantine at Quebec, between Quebec and Lansing. After such -size, form and fleece. He is a prize winner wherever he shows.

In conversation Mr. Phelps expressed igation. It may be electrical, or it may be himself highly pleased with his visit among the English farmers, whom he found shrewd, active, enterprising and intelligent, and very hospitable.

CHASING THE COWS.

To the Editor of the Michigan Farmer. I know two farmers who live only a short distance apart. Each owns a few good milch cows, and perhaps half a dozen young cattle. Mr. A. never allows his cows to be hurried; they are driven from the field at a moderate pace; they are milked while standing quietly in the yard. His young cattle are as quiet and as gentle as kittens, allowing the children to fondle and caress them. Mr. B. drives his cows with a dog, runs them into the yard, and, taking a pail, he corners a cow and endeavors to milk her. The cow, flurried and heated, will not stand. Mr. B. grabs a pitchfork and chases the cow around the yard, trying to make her stand. Finding this impossible he undertakes to drive her into the stable. He gets her near the door, then with a few prods of the fork and sundry oaths he gets her into the stable and closes the door. Of course, the cow now thoroughly frightened, does not go into the right stall, then with a whoop the brute gees for the cow with the fork. After getting her into the stall he again tries to milk, and succeeds in getting perhaps a couple of quarts. He then complains that his cows have good pastures but don't give any milk, while Mr. A., with no better pasture, gets an abundance of rich milk. If Mr. B. would try the effects of good treatment upon his cows he would get better satisfaction from his cows. Kindness is never lost even upon dumb FARMER'S SON. brutes. MORRICE, Sept. 7, 1887.

AGRICULTURAL COLLEGE OF MICHIGAN.

Bulletin No. 27-Commercial Fertilizers Inspection for 1887.

Act No. 23 of the Session Laws of 1885 requires the analysis each year of every commercial fertilizer offered for sale in this State if its retail price exceeds \$10 a ton. The manufacturers of fourteen different the Secretary of the Board of Agriculture for a license to sell said fertilizers, and deposited the fee required by law. I have gathered in the open market specimens of these fertilizers, analyzed them, and present in tabular form the results of such analysis in comparison with the composition as claimed by the manufacturer. By comparing the composition as it is "claimed" and "found," one can readily see whether the fertilizer comes up to the standard.

This law is designed to guard the public against fraud by preventing the sale of inert or spurious materials in the place of substances really valuable. When we consider that leached ashes and soap-boilers' waste have been offered for sale as "superphosphate." and a premium claimed for such 'superphosphate'' from the State Agricultural Society, and that parties in a neighboring State endeavored to sell marl as Buckeye Phosphate," we see that State supervision is necessary to protect the pub-

The law does not prescribe what the fertilizer shall contain, but holds the manufacturer rigidly to the standard he sets up for his own fertilizers in respect to the three

most important ingredients, viz.: available nitrogen, phosphates and potash.

The inspection required by this law gives no information about the use of the fertilizers, the kind of soil best adapted to their profitable use, the kinds of crops most benefited, the time to apply them or the quantity

This desirable information does not come within the scope of this investigation. Some brands of such fertilizers have applied to (day I hope to issue a bulletin to discuss some of the above topics, but the public must remember that the chief object of this law is to prevent fraud.

> If any one wants to estimate the money value by the commercial value of the three principal ingredients, he can readily do so by taking the value of nitrogen as 18 cents a pound, of soluble acid 8 cents, of reverted phosphoric acid 7% cents, of insoluble phosphoric acid 5 cents, and potash as 5 cents a pound. For example, take a fertilizer conaining 3 per cent of active nitrogen, 7 per cent soluble, 2 per cent reverted and 1 per cent insoluble phosphoric acid, and 2 per cent of potash. This would give the following results for every 2,000 pounds:

Value of one ton \$28 00

The foregoing values of these substances are the average trade values or retail cost in the market as agreed upon by the Experment Stations of Connecticut, New Jersey and Massachusetts for 1886. They represent the trade value and not the agricultural value of these materials.

R. C. KEDZIE, Prof. of Chemistry.

Manufacturer and		where specimens	-					composition of a contract of the contract of t				
		for Analysis were selected.	.10	Nitrogen.	gen.		Phosph	Phosphoric Acid, P	Pg 05.		Potash, Sol	Potash, Sol'ble in Water
Place where made.	of Fertilizer.	Name of Dealer,		Active Nitrogen.	Nitrogen or Ammonia.	soluble, Pa 05	Reverted, P2 05	Available, P2 05	Insoluble. P2 05	Total. P2 05.	As Oxide K2 O.	Assulphate K2 SO4
cker Chemical Works, A Buffalo, N. Y.	Ammoniated Bone Su- perphosphate	Su-Lansing, Mich.,	Claimed	2.9 to 3.7	8.5 to 4.5 8.28	6 to 8 7.00	2 to 4	8 to 12 9.50	1 to 2	9 to 14 10.50	1 to 3 1.10	2 to 6
	Potato, Hop and Tobac- co Phosphate	Lansing, Mich.,	Claimed	2 to 3	2.5 to 3.5 3.14	6 to 8 7.29	2 10 4	8 ts. 29 10.16	1 to 2	9 to 14 11.34	3.5 to 4.5	6 to 8 6.36
	Pure Ground Bone	Lansing, Mich.,	Claimed	2.9 to 3.7 3.50	3.5 to 4.5	0	0	0	88	88	0	0
	Vegetable Bone Super- phosphate	Flint, Mich., F. A. Platt	Claimed	5 to 6	6 to 7 5.15	4.5 to 5.5	1.5 to 2.5 2.50	6.09	1 to 2	7 to 10 6.41	6 to 8 5.00	11 to 15 9.20
	Queen City Phos- phate	Flint, Mich., F. A. Platt	Claimed	1.65 to 2	2 to 2.5	6 to 8 6.16	2 to 4	8 10 12	1 to 2 1.00	9 to 14 12.16	1 to 2	2 to 4 1.6
	Buffalo Superphosphate	Lansing. Mich.,	Claimed	00	0	10 to 11 10.18	110 2	11.13	1 to 2	12 to 15 13.81	1 to t	2 to 4 1.80
	Ammoniated Wheat Phosphate	Lansing, Mich.,	Claimed	2 to 3	2.5 to 8.5 3.00	8.83	20.97	10 to 13 10.60	1 to 2	11 to 15 11.40	2 to 3 2.16	3 to 5 3.30
rth Western Fertilizing Co., Garden City Superphos-	Sarden City Superphos-	Flint, Mich., Castree Mallery.	Claimed	1.64 to 2.47	2 to 8 3.00	5.98	4.48	9 to 11 10.46	2 to 4	11 to 15 12.58	1102	
rth Western Fertilizing Co., Challenge corn Chicago, III.	Challenge corn grower	Flint, Mich., Castree Mallery.	Claimed	1.64 to 2.47	2 to 3 2.10	7.06	1.44	9 to 11 8.50	2 to 4 8.85	11 to 15 12.35	1 to 2	
rth Western Fertilizing Co., Twenty-six dollar Chicago, Ill.	fwenty-six dollar Phosphate	Flint, Mich., Castree Mallery.	Claimed	1.28 to 1.64	1½ to 2	7.53	9.03	6 to 8 9,90	2 to 4 3.38	8 to 12 13.28	0	0
rth Western Fertilizing Co., Fine raw Chicago, Ill	fine raw bone	Manufactory. Chicago. Ill.	Claimed	2.30	3.00	0	0	0	23 to 25 23.00	23 to 25 23.00	0	0
& Co., Del	Diamond Solu- ble bone	Big Rapids, Mich.	Claimed	44 to .88	1,5 to 1	10.13	3.74	13 to 15	1½ to 3	15 to 17 15.88	0	0
sí.	Drill phos- phate	Manufactory Detroit, Mich	Claimed	1 to 2	1.25 to 2	7 to 8 8.9	.50 to 1.50	7.5 to 8.5	2 to 3	9.5 to 12.5	0	0
	Homestead Superphos-	phos- Grand Haven, Geo. Bancock	Claimed	1.85 to 2.40 2.5	2.25 to 3.15 2.38	7 to 10 6.91	3.88	8 to 11 10.79	88	8 to 11 11.51	8 to 11 1.48 to 1.90	2.75 to 3.50

THE APPLE CROP.

To the Editor of the Michigan Farmer.

While renewing my subscription, please permit me to make a suggestion or ask a question. While you are giving excellent reports of the condition and prospects of crops and markets for wheat, corn, oats, barley, hops, butter, eggs, etc., which I appreciate very much, it seems to me that you overlook the relative importance of the apple crop of the State, and do not give it the attention it deserves when compared with ple crop of the State, and do not give it the attention it deserves when compared with the production and value of some of the other crops noticed. Is there any way by which we can know something of the value of this crop in our State? If so, please give us the figures, and much oblige, C. C.

We do not know where our correspondent could find the information he asks. The reports received by the Secretary of State are has yet to be made. Had such information been obtainable our correspondent would

most assuredly have had it in the FARMER. But this brings up the question if it would not be advisable to collect statistics regarding the apple and peach crops, and whether the Secretary of State could not enlarge his report with advantage by information regarding those important crops. Of course he would have to meet the added expense of new clerks and additional outside work, but such an expenditure, added to the present appropriation for the purpose, would be but a small item, and we think would be justified by results.

A REPORT from Fort Scott, Kansas, last week, says that the Parkinson sugar works commenced running a week previous to work up this year's crop of sorghum cane. The report says it has been demonstrated that sngar can be made very prtfitably from sorgalways very meager, and it is safe to say a hum cane. From 104 to 110 pounds of first correct statement of the crop, and its value, sugar, twenty pounds of seconds and ten gallons of syrup is the average product from a single ton of cane. CENTRAL MICHIGAN FAIR.

and Buildings. The annual fair of the Central Michigan

Agricultural Society, held at the State capital, is only second in importance to the State Fair. Representing a number of the best agricultural counties of Michigan, within whose borders are a majority of the leading stock breeders of the State, and containing an active, enterprising and prosperous farming community, there is no good reason why this fair should not be both a grand exhibition of agricultural and industrial progress, but also successful and prosper This season the management, headed ly

that indefatigable worker, Secretary Ben. B. Baker, have inaugurated a series of im provements which will give the society the finest and most capacious grounds and buildings in Michigan. During a visit to Lansing last week we spent a short time looking over the work which had been accomplished and that yet in progress. The whole aspect of the grounds has been changed, and decidedly for the better. Approaching the grounds from the city; the roadways near them have been graded and ditched, and along the front a sidewalk extends up to the secretary's office. The old office has been moved off, and a new one substituted, around which the fence circles so as to leave it outside of the grounds. On one side of it is the entrance for carriages, the occupants of which can drive up to the office and purchase tickets without getting out. On the other side of the office is the entrance for foot passengers, with place for purchasing tickets also. The old fence has been removed from the south, west and north sides of the grounds, and a fine picket ence, seven feet high and substantially built, replaces it, and is a great improvenent. The horse stalls extending along the front have been torn away, and the ground graded. Then two long lines of new stalls have been erected on a line with those used or cattle but to the rear of them, on the new ground which has been added this year. One line of these is 16 by 400 feet, and the other 16 by 350 feet. These are divided nto stalls 12 by 16 feet, the partitions extending clear to the roof, the roof shingled. and the buildings of a superior character. The stalls have a door-way on each side, so doors are provided with a space for ventilaion, or both doors can be opened if the veather is very warm. Inside, a space two eet by twelve is partitioned off to afford a clace for storing feed, blankets, etc. These talls struck us as being just the thing for whibitors of horses, and we think Secretary Baker deserves the gratitude of horsemen or the manner in which he has arranged them. The tight roofs will be appreciated by those who have had the experience of exaibiting at fairs during the rain storms which so frequently come on with the fair seascn.

The new ground taken in this year nas been underdrained, graded and sown to rye, and wide streets have been laid out and graded between the rows of buildings. The cattle and sheep pens are being repaired, and the large buildings put in shape for the use of exhibitors. The track is in good

The grounds now enclosed include about and the result is they can offer greater facilities to exhibitors than any other Society in the State. We would like to see the State Fair held upon these grounds, for a couple of years, although we doubt the advisability of the Central Michigan Society suspending their annual fairs for that purpose.

Lansing is a great railroad center, and all parts of the State are in direct communication with it. The city is also having a remarkable growth at present in population, and the amount of building being done is greater than at any former period of its history. With good weather we look for the fair of the Central Michigan Agricultural College to be a grand one this year, in every way worthy of the fine section of the State it represents.

THE WEBSTER FARMERS' CLUB.

The Webster Farmers' Club held its regular monthly meeting at the residence of A. J. Sawyer, Saturday, Sept. 3rd. After having had a summer vacation of three months, the club came together with renewed vigor and with fresh plans. The place of meeting was a very pleasant one and the day was all that could be desired. Long before noon the yard was thronged with carriages, the spacious barns and sheds were filled to overflowing with horses, and If the soil is strong the plant will be strong, from every room of the house came the hum and so can withstand the work of the inof many voices. Among the numerous sect. Barnyard manure plowed under, is visitors present were Hon. E. B. Winans, the only practical kind of fertilizer. He Hon. A. J. Sawyer, L. D. Ball and A. Val- was glad to meet this Club, and thought entine. After being called to order by the the Club ought to press forward in their president the meeting was opened with well begun work. prayer by the Rev. J. E. Butler. The comone meeting and had decided that the Club needed a complete revolution in the way of a literary programme. While the past meetings had been very profitable in every way, and would have been a credit to any community, yet the Club is capable of still greater things. And in order to plan to the very best advantage for the future, this com-

A E Thorburn zoguryo

mittee asked that an addition be made to the committee consisting of the following: reparations for the Annual Fair of the Mr. and Mrs. Olsaver, Mr. and Mrs. Mer-Society-Improvements on the Grounds rill, also the wives of the present members of the committee. This request was granted. After various other matters of business were disposed of, the Club adjourned for dinner. Without stopping to describe the very delightful dinner that was then enjoyed, suffice it to say that it was fully equal to any dinners served by this Club in the past. Any one who has ever attended the Farmers' Club will know that this is saying considerable. After the usual recess taken

> A very delightful vocal solo was given by Miss Rosa Mills, of Marion. This was followed by a humorous declamation by Dorr Queal-one of Will Carleton's poems, entitled "The District School." It was recited in a manner entirely in keeping with the poem, and "brought down the house."

for social enjoyment, the Club" was again

called to order by the president.

A general discussion then followed on the following subject: "The best methods of preparing wheat ground." The discussion was opened by Wm. Ball. In his experience, sowing wheat upon oats stubble had sometimes proved successful and sometimes not. In sowing oats ground the field should have been well plowed before sowing the oats, and also well manured. Then it should be plowed immediately after harvesting the oats. On sandy soil the ground should be rolled as fast as plowed. Use the cultivator freely so as to destroy all the oats. By doing this the strength that would otherwise go into the young oats goes into the wheat. And then a man is not disappointed when spring comes, and the field presents a more barren appearance than it did in the fall when the oats were growing. The best time for sowing is from the 15th to the 23d of September. As to varieties it is difficult to say which is the best in all cases. Different producers have different experiences with the same variety. Without any question the best way of sowing is with the drill. In this way wheat can be sown more evenly than in any other, and it is followed by seeding more success fully. Too little time is spent with the fanning mill. We sow too much cockle and small wheat. Last year he sowed four varieties. He sowed ten acres of Traverse. This looked backward in the fall, and still more backward the next spring, and at harvest time it was decidedly backward. He also sowed Clawson, Valley Amber and hat a horse can be taken out on either. The Martin Amber. The Clawson was completely destroyed by the insect. The others yielded 15 or 16 bustels per acre. The insect because the plant does not spread out as much as others. Large seed should be sown, because it furnishes more nutriment for the young plant. Of the Fultz and Clawson about two bushels per acre should be sown; of the Amber about one and a half bushels per acre. As to fertilizers, he has had no experience with any except barnvard manure.

Mr. Nordman-We are in the dark on the wheat question. The insect is upon us. You farmers in Webster have not been so much troubled with the insect as in other parts of the country. It may be that the condition of the soil has much to do with keeping off the insect. Red wheat has been injured as much this year as white wheat. Farmers should not launch out too much on new varieties of wheat. He referred to A. C. Glidden as a very interesting writer for 57 acres, and they are in fine shape. The the Michigan Farmer. But in response Society has pursued the plan of putting up to an advertisement in the MICHIGAN substantial buildings, when they do build; FARMER he sent to A. C. G. for a bushel of Australian white wheat. On receipt of the seed he found it necessary to screen out a peck, a good share of which was chess and cockle. This was the first introduction. Some of the seed he sowed alongside of Clawson. That failed while the Clawson was good. Some he sowed on barley ground. When that matured he found four varieties in it. From Mr. Glidden's reputation he had expected better things. If this report should chance to fall under the eye of Mr. Glidden an explanation from him would be very appropriate. As to fertilizers, topdressing is not desirable. Would plow manure under. Top-dressing produces too great a growth of June grass. If he could get it this fall he would sow plaster. Knows nothing of the effects of salt. On low ground Clawson has done better than any variety.

Hon. E. B. Winans thinks he is the poorest farmer here. Has given his attention more to other matters. Strictly speak. ing, the farm requires as much brain work as any other business. He had succeeded in farming because he had done as his neighbors had. Last fall he sowed Martin Amber and Traverse. The insect destroyed one about as much as the other. The insect absorbs the juices of the young plant.

Robert McCall had been successful in mittee on topics reported that they had held raising the Lancaster wheat. For low ground the Egyptian is good. L. D. Ball had found by experience that

sowing 150 pounds of salt per acre would destroy the worst lot of cut-worms. In this way he had raised 40 bushels of wheat per acre, while in an adjoining field his neighbor had raised only ten bushels per (Continued on eighth page.)

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Growth of the Horse's Foot.

In "Artistic Horse-Shoeing" the author has the following on the growth of the foot of the horse, and the influence of soil and climate upon its structure:

It may be laid down as a rule, that the horn grows more rapidly in warm dry climates, than in cold wet ones; in healthy energetic animals, than in these which are soft and weakly; during exercise, than in repose; in young, than in old animals. Food, labor and shoeing, also add their influence; while the seasons are to some extent concerned in the growth and shape of the hoof. In winter it widens, becomes softer, and grows but little; in summer it is condensed, becomes more rigid, concave, and resisting, is exposed to severer wear, and grows more rapidly; this variation is a provision of nature to enable the hoof to adapt itself to the altered conditions it has to meet: hard horn to hard ground, soft horn

to soft ground. In this way we can account for the influence of locality upon the shape of the foot. On hard, dry ground, the hoof is dense, tenacious, and small, with concave sole, and a little but firm frog; in marshy regions, it is large and spreading, the horn soft and easily destroyed by wear, the sole thin and flat, and the frog an immense spongy mass which is badly fitted to receive pressure from slightly hardened soil. In a dry climate, we have an animal small, compact, wiry, and vigorous, traveling on a surface which demands a tenacious hoof, and not one adapted to prevent sinking; in the marshy region we have a large, heavy. lymphatic reature, one of whose primary requirements is a foot designed to travel on a soft yielding surface. Change the respective situations of these two horses, and nature immediately begins to transform them and their feet. The light, excitable, vigorous horse, with its small vertical hoofs and concave soles, so admirably disposed to traverse rocky and slippery surfaces, is physically incompetent to exist on low-lying swamps; while the unwieldy animal, slow-paced and torpid, with a foot perfectly adapted to such a region-its ground face being so extensive and flat that it sinks but little, and the frog developed to such a degree as to resemble a plowshare in form, which gives it a grip of the soft, slippery ground-is but indifferently suited for traveling on a hard, rugged surface. In process of tima, however, the small concave hoof expands and flattens, and the large flat one gradually becomes concentrated, hardened, and hollow, to suit the altered physical conditions in which they are placed.

The degree of health possessed by the horn-secreting apparatus at any time has also much to do with its activity in generating new material. When its blood-vessels become congested or contracted from some cause or other, its function is in a proportionate degree suspended, and the hoof grows in an irregular manner, and may be altered in thickness, texture, and quality.

In the ordinary conditions of town work and stable management, I have observed that the wall of a healthy foot-its chief portion, so far as farriery is concernedgrows down from the coronet at the rate of about one-quarter of an inch per month, and that the entire wall of a medium-sized hoof has been regenerated in from nine to twelve months.

The process of celerated and exaggerated by irritating the country are merely to catch suckers, but surface which throws out the horn material. Thus a blister, hot iron, or any other irritant or stimulant applied to this part, will induce not only a more rapid formation, but one in which increased thickness is a marked feature.

Care of Horses.

It has been said by the Scottish Farming veterinarians are paid in consequence of impaired digestion resulting from faulty feeding. Most feeders of horses believe that good hay and oats or meal are all the feed that a horse requires. But a horse enjoys and requires an occasional change of food as well as his master. Mankind would think their lot was cast in unpleasant places if they were compelled to eat pork and potatoes day after day for an entire year, yet they sometimes seem to be willing that the faithful horse should subsist upon a continuous diet of hay, oats or meal.

There is nothing more beneficial to the horse than green grass occasionally during the summer. In fact, there is nothing better for a debilitated animal than to turn it out to grass for a time. This should be remembered and the horse occasionally indulged in a feed of green grass during the as great a three-year-old as a two-year-old." summer, and in winter with carrots, apples or a few cut potatoes that give a desirable change to the diet. So long as farmers are the masters of animals they should make it a study to make them comfortable and provide food in a desirable variety. - Germantown Telegraph.

Spinal Meningitis in Horses.

This disease has been ravaging the stables in New Jersey for some time and has finally found its way into those of New York City. The symptoms are given as follows:

The disease appears to be miasmatic and not contagious. The first sympton is for the horse to refuse to eat. Then his hind quarters begin to stiffen up and lose their power of motion. He is unable to manage himself and if you push him around his legs will twist up, as if they were utterly beyond | Kilwarlin's unexpected victory. his management. All the time he will groan and indicate that he is suffering from intense pain. Then his pulse will grow weak, while the temperature will rise to 106 to 1061/2. Within an incredibly short time he will be completely paralyzed behind and he will fall down and roll over for all the world like a dog. Lastly, he will experience great difficulty in swallowing-he can neither eat nor drink. And then the animal dies from heart failure. The indicated treatment is to physic and stimulate the animal, but so acts the patient is beyond the reach of medi-

THE young stallion Sphinx, owned by Sutherland & Benjamin, of East Saginaw. won the four-year-old stallion stakes at Cleve land last week, in straight heats; time, 2:27, 2:25, 2:251/s, which is a good record for so joung a horse.

Horse Gossip.

THE managers of the fair to be held at Albion, Calhoun Co., offer \$1,000 in speed premiums. The date of the fair is Sept. 27 30 inclusive.

JAY-EYE-SEE is reported to have trotted a mile in 2:151/2 at Lincoln, Neb., on Wednes day last, making the fastest time yet reporded over a half mile track.

sold the pacer Richfield to E. J. Vance, of Bay City. Richfield is said to have paced a mile in 2:26. The price is reported at \$1,000

A RAILWAY train ran into a lot of horses on he farm of Ezra Rust, of Saginaw, on Thursday night last, killing five and injuring four others. In the lot were a fine driving horse and several Clydes.

PRESIDENT CAMPAU, of the Detroit Driving Park Association, visited Cleveland last week and completed arrangements for a race between Clingstone and Patron, during the fall neeting, for a purse of \$5,000.

taking the next three in 2:1814, 2:1714, 2:1914. The otler entries were Atlantic, Orphan Boy and Tom Rogers. Massas. Dewey & Stewart tell the follow ng singular circumstance: Thos. Barlum,

August 12, 1886. She foaled September 7 carrying the colt for 391 days. Ar the Cleveland Driving Park on Friday est the mare Belle Hamlin was sent a mile f r the purpose of breaking her own and the repords of Patron and Clingstone. The pri e was a cup. She made the mile in 2:1334. The

rotting mare, Home Maid, to Louis Napoleon

GENERAL KNOX 140, record 2:3114, died reently, aged 32 years. He was sired by Ve :mont Hero 141, first dam by Searcher, son of Barny Henry; second dam the Hunsden mare by Hill's Sir Charles, a son of Duroc. Gen Knox's descendants are speed producers also.

quarters were 33 1:07, 1:4114 and 2:1334.

Ar Omaha the other day, an unknown acer named U Bet, owned by John H. Erby, of Chicago, with a running mate, paced a mile in 2:13. Erby has been offered \$10,000 for the horse but refused to sell. He wants to a running mate.

COLDWATER Republican: Magna Charta is he sire of the dam of another2: 30 performer. Magna Wilkes, a son of Geo. Wilkes, and from a Magna mare, won the 2:30 race at Omaha, Neb., last Friday, winning one heat n 2:2914. Certainly Marna is to Michigan what Pilot Junior or Alexander's Abdallah has been to Kentucky.

other at Cleveland on Thursday last. Patron | math the last of October .- F. D. Curtis, got the first heat, and Clingstone the next in N. Y. Tribune. two. Then Mr. Emery withdrew Patron on the ground that the horse was sick, and the race was given to Clingstone. The time was not fast, being 2:17, 2:19 and 2:19. Clingstone trotted the last mile alone in 2:42.

THE daily papers announce that W. W. Bair, on behalf of Frank Siddals, of Philadelphia, offers to match the pacer Johnston to wagon from \$1,000 to \$10,000, over any national track in the United States, against any pacer or trotter to harness, barring Maud sometimes gives the best returns, for some S. and Jay-Eye-See. Which is the way Frank takes to advertise his soap, as cheaper than paying regular rates for it. These spread cements telegraphed all over the some of the papers don't seem able to "catch

THE Central Michigan Agricultural Society has three breeders' stakes to be trotted for at the fair at Lansing, September 26 to 30 The classes are two, three and four year olds. There are nine entries in the two years old the four years old class. The purses are World that one-half the fees that are paid to divided as follows: Seventy per cent to the first, twenty per cent to the second and ten per cent to the third. The entries comprise a fine lot of Michigan bred horses, the sire represented being Bay Middleton, Black Cloud, Pilot Medium, Louis Napoleon, George Milo, Wm. Rysdyk, Lumps, Masterlode, Young Abdallah, and others.

> THE Flatbush stakes, run for over the Sheepshead Bay course recently, were won by Sir Dixon. The distance is seven furlongs, and the winner carried 115 pounds. The time was 1:29. The N. Y. Tribune says of the colt: "No handsomer, more elegant twoyear-old colt has been seen on the American turf for years, and his action is the smooth and effortless skim of the swallow. He is by Billet out of Jaconet. Mr. Morris has in him a really great colt and one that will be feared mext year. He displays such ability to stay as well as to run fast that he is likely to make

THE race for the Doncaster St. Leger, ran on Wednesday last, was remarkable on account of the winner being apparently out of the race from the commencement. The winner was the bay colt Kilwarlin, Merry Hampton being second and Timothy third. Six others started. The start was delayed a quarter of an hour by the restiveness of Kilwarlin, Eiridspord and Merry Hampton, Eventually all got away except Kilwarlin who persistently refused to take the word and was left at the post. He made no attempt to follow the others until they had gone a hundred yards, then he went with a rush and at the end of the first mile joined them. When the bend was reached Kilwarlin had taken the lead, and an exciting finish ensued, Ki!warlin winning by half a length, going between Merry Hampton and Timothy. The spectators were wild with excitement over

THE Michigan Board of Review of the American Trotting Association held an adjourned ter transacting some special business, took up the case of George Tuft, of Loretta F rotoriety, and after fully examining into the eviddence offered by C. C. Pond, the owner of Loretta F, issued the following order: "The Board is of the opinion that the interests of the Trotting Turf will be promoted by preventing George Tuft from performing on tracks of this Association pending action of an extra large crop or some such good reaswift is the disease that before the medicine the Board of Appeals. It is therefore ordered son, yet the price is generally much higher that said George Tuft be suspended from all in winter and spring than when harvested. tracks of members of the American Trotting as was the case this last year, when the Association until the meeting of the Board of Appeals in December, 1887." This case has been referred to before in these columns. Tuft acknowledged that he had received moneys for pulling Loretta F, while her own- who sold in January or February received er, who knew she could win, was backing her. only 75c to \$1 25. To know just when to use as a substitute, and how best to use it. season in a most emphatic manner. First of Tuft is a Canadian.



Success in Grass Seeding.

The "poor catches" so many farmers complain of are the result of a weak soil. There is no trouble about getting a good seeding if the surface of the land is rich. This is not all; when grass seed or even Da. B. L. CLEVELAND, of East Saginaw, has clover is sown on rich land it holds on wonderfully. Clover is by nature a blennial, but in one of the most exposed parts of our fields it becomes almost eternal, because at the time the rye was put in, the ground was covered all over with a thick coating of clear sheep manure. In the spring the clover seed was sown on this strip, as well as all over the lot, and in two years it was all gone in the rest of the field, but on the land manured so strongly it showed no signs of failure and held on until the land was plowed up. It pays to seed land well. The seed is costly and it puts a farm out of joint to lose a seeding, hence too much pains cannot be taken to put seed in well, but manure is the main thing. If there is not a AT Cleveland last week, in the race for the supply of barn manure then I should use the phio stallion championship stakes, Patron won easily, losing the first heat in 2:231/2, and | best commercial fertilizer I could get to give the seeding a start, and put the manure or as soon as possible, afterward. Meadows and pastures may be mended by sprinkling manure on the barren spots and harrowing them over and sowing grass seed on top. the well known butcher of this city, bred his For a permanent pasture there should b

variety of grasses, in order to get a full supply of growth and to insure the entire overing of the ground. A thick mantle is important, as this "thickness" insures protection. Four bushels of orchard grass are required for an acra, or of any of the grasses with the same light chaffy seedssuch as blue grass or redtop. There should be for a strong permanent seeding, two oushels crehard grass, two of redtop, two of blue grass and one of meadow fescue. These grasses should be put in on land made as mellow as possible and free from clods and umps. If necessary, it should be rolled everal times and then harrowed, and the seed, after being well mixed, sown broadcast and covered with a brush harrow. .. If possible a light sprinkle of manure should be put on the surface and harrowed in with the last harrowing. In the absence of barn manure a liberal dressing of superphosphate back him against any pacer in the world with would be good. No grain should be sown with the grass seed. It will pay in the end to give the grass seed the best chance. It is not a temporary crop that is wanted, but a lasting one. There must then be a good oundation, and the too common practice ef late pasturing must not be followed. It will be safer to take all stock out of the permanent pasture the last day of September and let it get a start for its own protection in winter. I once killed seven acres of fine PATRON and Clingstone trotted against each orchard grass meadow by cutting the after-

Keeping Cabbage During Winter.

A Massachusetts farmer says: There are two methods of disposing of the cabbage crop:-One is to sell at the going price directly from the field, getting from 40 cents to \$1 00 per barrel, according to the market; this method gives very little if any waste, and makes very easy and clean trimming, and years the price is as good when harvested as in March or April following,

The other method is to hold the crop until winter or spring, and this makes storing necessary. The farmers of Dracult practice storing in cellars, and a number of them have built large cellars expressly for this purpose, while others use their bran cellars or the basement of some outbuilding.

One of the largest of these storage cellars class, eight in the three years old, and two in a side hill with doors and shutters in the vest and fall in Wisconsin which was folsouth side and a hen house in the roof above it: this cellar gives room for perhaps fifteen hundreds barrels of cabbage, beside having one end partitioned off for storing heads packed away in racks that are built from the floor to the top of the cellar; these racks are so arranged as to allow a passage every six feet or so and the heads are laid in only one deep on the shelves so as to allow frequent inspection and thorough circulation of air.

if the temperature has been properly attended to will come out fresh and crisp, and bring a good price.

Another way of storing is to cut them up about half way of the stump if well headed. if loose pull roots and all, and set them head up on grass ground and cover with pine shives, oak leaves or with meadow hay, but stations on the outside of a field alongside a it requires much more hay than leaves to line fence, would smell the bugs and declare keep out the frost. And still another way they were in our grain. Yet they could not of bedding is practised by some of the gar- find a solitary bug. The smell came from deners near Boston, and by some seed grow- the fields across the line. It sometimes hapers, who pack them away in a broad, shallow pit, cover with straw or hay, and then clean by the end of harvest. Fall plowing in with dirt, and I have seen beds covered first with dirt and then with seaweed. The ob- strip of sowed corn. A heavy sowing of salt ject being in all these different ways to so is a check, and if there is corn stubble left, cover them as to keep them warm enough burn it. If you can keep the bugs out the not to freeze much-a little freezing does no first year of their appearance and check harm-and keep them cool enough not to them in the second, they are likely, in the heat and decay. This all seems simple average run of seasons, to encounter a wet enough, but when put in practice it is found period the third year, and disappear entire quite difficult to make a perfect success of ly. Drouth, heat and chinch bugs usually

Cabbage should be bedded in some well drained spot, for wet ground or standing water will draw frost, so it is necessary to have the rain find a quick passage from the neeting at Lansing on September 9, and af- bed or frost will often follow it down and spoil the cabbage. I have tried to make plain the different methods of keeping the crop, and now as to objects of keeping it. which are two-one to save valuable time at harvest and the other to gain money in the selling. Although there is sometimes a year when the price rises but little on account of price rose from 50 cents per barrel in November to \$2 50 and \$3 00 per barrel in April and first week in May, although those

ing of both the market and the supply; but the reward when you get it is sufficient to pay well for the work and expense incurred.

Experimental Potato Culture. The Canadian Formers' Advocate says. in a report of its editor's experiments in

potato culture: The great majority of reports that we have seen relating to relative quantities of seed potatoes planted are defective, for in them the number of bushels sown to the acre is not mentioned. The whole work being merely relatively stated loses considerably in value.

Last year, in our experiments with potatoes, we weighed out the same definite quantity of large, medium and small potaoes, planted them in rows three feet apart the distance in the rows being 14, 12 and 10 inches respectively. Taking the average of ten sets of experiments, with ten different varieties, the small seed potatoes came out slightly ahead of the medium, and the medium sized gave slightly better results than the large seed, that is, on the (equal) weights planted. It must be renembered, however, that the small seed ocupied more than twice as much ground as the large. As it is generally not the seed planted, but the cultivation and interest, or rent of the land occupied by the crop, that incurs the greater expense, we must calculate the yield per acre, from which the quantity of seed sown is deducted, as a basis for calculation. Taking this view of it, the large seed gave a decidedly greater return, and was more profitable. We do not know of an experiment of this kind in which the average did not show an advantage in thick eeding.

Thicker seeding does not necessarily im ply putting a larger amount of seed in hills far apart, but simply means planting more seed to the acre. Close planting with small pieces from large potatoes has given very good results as compared with the whole potato at larger intervals, but the experiments regarding this are limited, and are therefore not reliable. S) far as we know, no reliable tests have been published to show whether it is better in planting a definite quantity of seed per acre, to use larger cut potatoes, or smaller whole seed.

At New York, an experiment was conducted to determine whether shade acted injuriously on a crop of potatoes. In this experiment potatoes were planted between rows of coro, far apart, and the result, compared with an equal number of rows without this shading, was in favor of those grown without the shade.

An observation made at the same station on the growth of potatoes after the tops commenced to die showed that the large potatoes increased very slightly, if any, while some polatoes, with a diameter of one quarter of an inch, measured three-eighths of an inch through when the tops were completely

We publish these results at this "time of the year because experiments prove that in order to obtain the best results, to increase the standard of the variety, or to prevent it from deteriorating, it is necessary to select the seed when digging the potatoes from the hills that give the largest return, and if pos sible from those that contain the largest number of medium sized potatoes.

In looking over the large number of experiments conducted with potatoes, we find that several important points have been omitted, and it is our aim, in conducting our experiment station, to make the investigation more exhaustive, thereby making the esults more practical

Managing the Chinch Bug.

Says J. A. Truesdell, in the Country Gentleman: It is often stated that nothing seems to check the chinch bug but a wet season. It is true that a wet season destroys is about 60x40 feet and 10 feet high, built in the pest. I remember an extremely wet harlowed by an entire absence of bugs in next season. There is, however, a preventive that has been successfully used in many western localities. In sowing, leave a strip of the buck he uses. My experience with three or four hundred barrels of onions; the all around a ten acre field of wheat or other cabbages are cut up about half way of the grain about a rod wide-two rods is better if stump, the loose leaves trimmed off and the the land can be spared-and as soon after sowing as the condition of the soil and the probabilities of weather will permit, sow thickly in drills ordinary field corn. If in a poor corn country mix in sweet corn. Yanree, or some of the so-called "Ninety-days" variety. If you can get a good stand of sowed corn growing by June 15, the bugs In such a cellar the cabbage can be taken | will do little harm to the enclosed grain out very conveniently at any time that the field. By the time they have eaten through price is good enough to suit the owner, and the strip of corn you will have harvested your wheat.

This plan of course, is for ground likely to be invaded, and not for that where the bugs have enjoyed themselves for one or two seasons and laid eggs. I have hundreds of acres of wheat cut two or three years in succession, where the men in binding their pens that the bugs will eat the sowed corn a wet year often kills the eggs laid in the come together.

Wheat Raising.

How to secure a large yield of wheat with the least possible expense is now an all-important question with the farmer, in the older States at least. In the vast area of the Western States and Territories, where the land is rich and comparatively fresh, this question is not forced upon the farmer, for ha generally makes as much wheat as he can well take care of and get to market. Besides, his wants are few and simple, while, in the older States, where the land has been partially worn out, crops reduced, expenditures increased, and his wants multiplied he must look to science or something else to help him out. He would like to raise a big crop of wheat, but he has not a sufficiency of barn yard manure to enable him to do so.



For House, Barn, and all out-buildings. Anybody can put it on.

stances. If you wish to raise grass (not clover) after the wheat, and there is a goodly supply of vegetable matter in the land, then freshly ground bonemeal is undoubtedly the best. But if you wish to follow the wheat with clover, then a superphosphate is preferable to bonemeal, in that it acts quicker, and in addition to the crop of wheat will produce good crops of wheat for several years thereafter. If, however, the land is so poor as to be unable of itself to produce either wheat or straw, then, by all means, use a first-class ammoniated phosphate containing not less than two per cent of potash. But if you fear an excess of straw and but little grain, then it would be perfectly useless to use a highly ammoniated fertilizer, but soluble phosphoric acid, as it has a tendency to make the berry plump as well as stiffen the straw. If there should be any fears of the wheat lodging badly, there is nothing will prevent it more readily than an application of 300 or 400 pounds of common salt, either to be sown broadcast or drilled in with the wheat, or it may be sown broadcast over the wheat at any time during the winter, with equally good results. In reference to benemial, farmers are very often imposed upon by its being adulterated with ground oyster-shells, plaster or other material and sold to then as pure bone. Fresh bone, too, from the meat shops and canning establishments, is worth double that of old bones that have been bleaching in the sun for many years, such are found on the boundless plains of the West and gathered up to be ground into bonemeal. To sum up, then: As a rule, hilly lands require an ammoniated phosphate, while bottom lands, or those which contain a superabundance of vegetable matter, shows better results from the application of plain superphosphate or bone-

The Common Farmer as a Wool-Grower I do not wonder, says a correspondent of

meal, unadulterate I with other materials.

Germantown Telegraph.

Farm and Home, at the farmer's failure as a wool-grower when we consider his education upon the subject. The real trouble is. few men know how to manage their flocks, or, knowing, put their knowledge into practice. If you will observe the treatment of flocks in most cases you will think that sheep, like weeds, will grow without care or cultivation; and so they will-and be about as valuable as weeds. Sheep will live on very rough food and endure a great deal of exposure, and certainly they get about all they can stand of both at the hands of the common farmer. Upon the other hand no an !mal will respond more freely to kind treatment and good food than sheep. But neglect seems to be the great drawback to the farmer as a wool-grower; and because sheep fail to give returns under such treatment they are pronounced unworthy. The average fleece of wool does not weigh over four pounds and the average sheep does not yield more than 50 pounds of mutton, and that of an inferior quality. What if by improvement these fleeces should be raised to ten or agen eight pounds and the growth of mutton to seventy-five pounds? The difference in dollars and cents in the farmer's pocket would make him look with some degree of favor upon his flocks, besides the pleasure in knowing he had done something in the way of progression. Improvement is the one thing necessary in our flocks. Not that every farmer should have all thoroughbreds. That would not be profitable to all, but grade up the flock by the selection of the best common ewes and the purchase of thoroughbred backs. A few extra dollars placed n a good buck will be returned greatly multiplied in the enhanced value of the lambs. No man can afford to disregard the quality sheep has taught me that they are profitable. Where farmers size their flocks according to their farms and facilities for caring for them they cannot fail to reap reasonable rewards.

Agricultural Items.

It is possible for the best box of butter exlibited at the fair to be held at St. Johnsbury, fermont, to receive premiums amounting to \$45. This is something worth while. Exhibitors are required to fill out printed blanks. giving the particulars of manufacture, breed,

T. B. TERRY says he has often, in his trips through the country, seen a good warm barn on a farm, and the cattle out doors, eating cornstalks or hay on the snow. This he thinks as sensible as for a man to carry an umbrella under his arm through a thunder shower without raising it.

PROF. STORER says a ration of 30 pounds of

pumpkins per cow daily will increase the flow and improve the quality of milk. More than this quantity should not be given. Pumpkins are very cheap food, as a couple of tons can be grown to the acre with the corn crop. The seeds of the pumpkins ought to be removed before feeding.

A WISCONSIN farmer took his stock through a hard winter, after a dry summer, by stor ing every bit of corn fodder, putting all his straw under cover for feed, and buying liberally of wheat bran. His stock came through in good condition, and he made as much money as if forage had been more plentiful

L. S. Coffin tells farmers that it is a grea mistake to think that they must keep the mangers full of hay all the time. He says much less hay run through the feed cutter. mixed with ground grain, and moistened will keep a horse in better condition than if fed twice the quantity without preparation.

A WESTERN dairyman has hit upon a very imple plan of warming water for his stock to drink in winter. He put an iron plate, say 18 inches square, on the bottom of his water tank, cutting away the wood, of course, where the iron was. Under this plate he used ar oil stove. He says ten cents' worth of oil day would warm the water for 60 cows up to 70 degrees or more.

A CORRESPONDENT of the Country Gintlema says: "The question of good seed vs. in-What he wants to know now is whathe shall ferior has been answered on my farm this sell it requires experience and a close watch- This will depend very much upon circum- spring found me buying Early Rose seed po-



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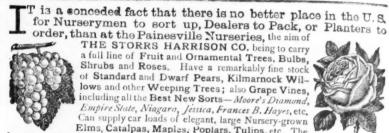
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so far that the mammoth yield was the talk

of the district. Very few small potatoes

were the outcome, and I sold my crop for a

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Horticultural.

A FINE VINEYARD.

The Grand River Valley Horticultural Society held its September meeting at the farm of H. H. Hayes, of Talmadge, Ottawa Co. Mr. Hayes has a fine vineyard of Niagara grapes and the description of it and the methods of culture is condensed from the report furnished the Allegan Gazette: The long rows of vines were a picture of thrift and wonderful fruitfulness. Great slusters of beautiful greenish-white grapes hung thickly among the great leaves, or, extending beyond them, were tinted a golden vellow, and all were covered with "bloom." which on any fruit is a source of peculiar leveliness. Many of the clusters were from seven or eight inches in length, double shouldered, and a pound or more in weight each. A basket of eight bunches sent to one stomer weighed nine pounds. No one could find any fault with the condition or methods of the vineyard-indeed, both were sources of information to even the best grape-growers present; but some vines, a few that had died from some cause unknown to Mr. Hayes, proved to be victims of phylloxera, and Mr. Hayes was cautioned to remove them at once.

Mr. Hayes has 500 five-year old vines 1,000 four-year-olds, and 3,000 set this spring, his faith in Niagaras having grown as a mustard-seed. The bulk of his crop is non the five-year vines and he estimates it at eight to nine tons -possibly more. He pretty sure to clear \$1,500 this season rom about four acres of ground. His first setting was 10x12 feet, his second 10x10 feet, and his last 6x12, his plan of training the arms in opposite directions giving as much room in the latter case as in the first. The trellises are of the Kuiffen sort-two wires one above the other, attached to losts. One great virtue of the Niagara ies in the fact that it will remain on the rines after ripening until cold weather coms removal, neither cracking, shrivelling or dropping in the meantime. Thus it aves its grower from loss by glutting of he market. The Niagara ripens between oore's Early and Worden.

Mr. Haves planted his vines and trained em to stakes the first year and thereby talarger and more robust growth than an be obtained by leaving the vines on the gound. He gave them thorough cultivafrom the beginning and in the fall cut ek to three buds. The second spring they were tied to trellises and cultivated rly. One hundred bushels of unleached er per acre and one pound of bone dust vine were sown broadcast, the latter cultivated in at once. The cultivator sed frequently, especially after rains, to rusting of the ground. In the fall closely about each vine. The third son they bore fruit; the same fertilizers re used and the same cultivation given en the blossoms are dropping he pinches he terminal bud-does not cut back the that all, and later pinches the laterals en they have grown one foot or one and of feet. When the fruit is formed the e fruit buds that appear at the first nt of the hearing wood are removed thins the fruit, removing preferably the ll or loosely formed bunches-this year thus went over his vines three times. the season many shoots will be They should be promptly pinched cribed, makes large leaves, which are 1 e sary to proper development of the fruit. t. Hayes' Niagaras have always been left on the trellises and never lost a bud, alghteen degrees below. This sufficiently tests the variety's hardiness. Said Mr. yes: "Be in your vineyard every dayve there." A voice: "And sleep there?" 'No, don't go to sleep, but be there at night ake only what they wish to eat. But once he had about \$80 worth taken in one night and of July. He quit earlier this year and so liable to decay in the soil. his fruit is earlier. Heretofore he has sold is fruit in baskets, in Grand Rapids, but will this year ship to Chicago, Milwaukee, and St. Paul; and will use a crate with packages holding four pounds, manufactured by the Niagara company. They are provided with a paper lining, the edges of

He has had ten cents per pound for former tops but expects more this year. As illustrative of the difference between arefulness and carelessness with grapes, Mr. Hayes said one of his neighbors practiced laying down his vines in winter; and last spring he left them down until his spring work was done, not putting them to e trellises until June, and was inclined to ame the vines when he found that the buds had started but rotted and he would have no fruit this year. One season cut-Worms troubled his vines, but since then he as had no more of them; and he attributes their absence to the effects of the buck wheat which he grows among the adjoining peach trees. He prunes in the fall as soon as the leaves have dropped, cutting the vines back so that but two arms are left, with eight buds on each, and these some of the soundest and healthiest of the new growth of Wood, preferring those nearest the base of the old arms. All bearing wood of the season is cut away. Never prune in the ring. Hereafter he will train one arm on he lower wire and one on the upper, runing them in opposite directions. He ties with wool twine, three or four ties to each ring piece. In the second thinning take out the bunches which cross wires or vines, ving only such as hang free.

which are perforated in an ornamental way.

are eighteen inches of tightly packed sawt, the same extending over the ceiling. drains run from the stone floor down age of cool air whenever it is needed. to the north, but it is kept closed during

hot weather; and there are flues for the es- of drying is by the sun process, which is cape of the warmer air of the room. In this apartment fruit may be kept many But little fruit is being crystalized, owing days, weeks, or even months unchanged, and marketed when prices are best.

The Hayes farm is nine miles directly west of Grand Rapids, upon a very high ridge of land that runs on north to Sparta. The soil is a very rich clay loam with gravel, the very ideal of soil for fruit-grow-

FLORICULTURAL.

JULIUS HEINRICH Says, to the American

Agriculturist, that as a rule lily bulbs should be planted five or six inches deep, in mellow, we l pulverized, rich soil. The drainage should be such that all surface water will run off easily. Nothing will injure bu!bs more than stagnant water around them. They should always have good bottom drainage. The soil should be kept clear of weeds, and well worked. It is not a head thought he ought to hit it, and deadvisable to transplant the buibs oftener than once in four years, for unless their new quarters are much superior to the old, they will do far better if left undisturbed. Balbs should not be planted on freshly manured soil. Old, well pulverized manure is desirable to mix with the soil in small quantities when planting, or for the top-dressing in after years. Mulching in hot weather is him a little; and if my expert rural reader desirable, and all flowers should be cut off thinks he knows all about it, why he can as soon as they fade, as they will exhaust the plant by forming seed. Stable manure should be used, with leaves or other coarse litter, for covering the bed in winter. Many bulbs will grow anywhere, as freely as pctatoes; but it is best to give all varieties good care. Lily bulbs should not be kept is the gardener's best friend, his faithful serout of the soil for any length of time. If vant, and most expert bug catcher. Tried you have them on hand, are not ready to by any standard of taste, the gray, speckled, plant them, they should be kept in pots or warty toad is not a beauty. But "handsome boxes of soil slightly moist, or what is bet- is who handsome does." I have a number ter, if it can be had, well pulverized leaf of these fellows in my back yard, and l mould from the woods. They should be carefully avoid disturbing them in their work. kept in a cool cellar or pit. Care should be I begin to know some of them apart from taken that the soil is not too wet, for if so. it will encourage the bulbs to commence to grow. In this way bulbs can be kept all changes in bulk. In the morning he is lank, winter, if necessary, in excellent condition.

layers, the latter being the best means of obtaining good plants, and keeping the varieties true. This operation is simple, and if not having acquired confidence in my benevnot already performed, should be done with- olent disposition; but at that encounter his out delay. First, select the plants to be layered, and place some prepared light soil minded me of Mark Twain's famous leaping the growth of the tree by feeding on the three inches deep around the plant: then with a sharp knife make a slanting cut upwards in the grass, commencing at the joint, and taking the cut right through the the muzzle, not with shot, but insects. An next joint, peg it firmly down in the prepared compost, and in the course of a month the shoots will be nicely rooted, when they may be lifted and planted in beds, or allowed to remain there until the spring before think that a healthy and able-bodied toad being transplanted. To increase by cuttings of industrious habits, will get away with These lice are pale green at first, but grow outs a mound of old compost, about a is rarely resorted to, being never so certain and digest his own weight of insects during darker as they develop. These wingless of success as by layering; however, in ex- twenty-four hours. I have furnished him females bring forth their young alive, of ceptional cases they may be taken in June and his kinsfolk with enough and to spare their own kind, generation after generation, and inserted in pots, and placed under a hand-light or cool frame. Good plants may material as a mulch for my gladioluses. I different observers. This process is without be raised from seed, which should be sown shall not repeat my folly, at least, until I sexual connection—the methods of the aphis in May, in good soil, and placed in a gentle can get double as many toads. Cherish your in breeding being peculiar. In due time the heat, growing on until large enough to toads, therefore; and if you be of an insect- pupe appear, bearing a close resemblance to pl nt out. Plants obtained in this manner | icidal turn of mind, turn out by daylight, | the larvæ. Sharp investigation, however, have, however, many single and inferior and watch the teads getting their breakfast. blooms among them, which should be weed- It is very entertaining. ed out when in flower, leavl g only the good varieties, which should be increased tion culture, remember that damp and cold by layering. To ensure success in carnasoil is the forerunner of all evils to which the end. Pinching of terminal buds, as this noble plant is subject.—Horticultural

THERE is, says J. Miles, some skill in se lecting cuttings, as they will always strike ugh the mercury, once last winter, marked root better if taken from the fresh growth of a plant rather than from hardened wood. If, for instance, a branch of geranium or verbena will break off readily, it is in a right state to grow rapidly, and it is better to break it off than to cut it, because it leaves ometimes." He said the boys come but an irregular surface from which the roots will put forth more quickly. Other cuttings, like those of roses, heliotropes, &c., will soon after, one evening, he gave a thief grow better if taken at the junction of the among his vines a charge of shot and has old and new wood; and they should be cut not been troubled since. He allows no off just below a joint or bud, as the roots shoots to grow upon the body of the vine start from that point, and if a bud is not left and does not cultivate later than the 20th near or close to the base, the cutting is

The "Orchard of the World."

"The fruit season thus far," said Secretary Lelong, of the California State Board of Horticulture, "has been eminently satisfactory to the fruit men of this State. Tne production of fruits will be greater this year than ever before. I think that the next few years will witness an enormous fruit product, and this will be encouraged to an almost incalculable extent when it becomes more fully known to the farming community that, with a largely increased output every year, the prices grow more satisfactory. This if accounted for by the fact that better classes of fruits are grown, and these are in great demand by canners and for Eastern shipments. People in the Eastern States and in Europe, for that matter, realize that superior qualities of fruit are being raised in this State. Some years ago they did not know this, as dealers could not transport our horticultural products in their green state easily, or for a reasonable price. This is now being accomplished and a large market beyond the Rockies opened up to our producers. It is now possible for people of limited means and living several thousands of miles from us to eat our luscious fruits for a price not much beyond that which is now paid here. Of course, in Europe only persons of some means can purchase our fruits, and then principally in a canned state. I confidently believe that the time is not far distant when we will ship green fruits to Europe. Canners obtain a great deal of fruit for preserving, and this make our local markets short; still the demand is met without much difficulty. Mr. Hayes has provided against losses by Another feature of the fruit business in this ather, either hot or cold, by building a State is the vast quantities of fruits that are house well guarded against atmospheric dried. No conception can be formed of inges. The walls have an outer air cham- the magnitude of the drying operations, ber four inches wide and succeeding this which are yearly increasing. Fruits of all be made to fit it at both ends and one side, sorts that are bright and clean dried bring better prices than when fresh, besides they have the advantage of keeping for any hill, opening 150 feet away, giving a length of time. Dr. Kimball, of Livermore, has just dried one hundred tons of ap-

better and cheaper than any artificial method. to the limited market for such sweets and the increased expense incident to its manufacture. In every respect the fruit interests of the State are prospering, and the outlook could hardly be brighter. If we can succeed in checking the ravages of the pests, this State is bound to become the orchard of the world."

The Gardener's Friends.

The expert gardener not only knows his foes in the insect world, but his friends there or rather his allies; and while he pursues the former with whale-oil soap, white hellebore, and other deadly things, treats the latter with "the most distinguished considecation." But the amateur, whether he tries to raise flowers, fruit or vegetables, is very much like the excitable squireen at Donnybrook fair in the old time, who, when he saw votes all insects, and reptiles too, to indiscriminate slaughter. Worse than that, he is apt to shoot the poor robin or cherry bird, who takes, one a grape and the other a cherry, as moderate wages for faithful execution done upon the insect robbers around. It all comes through ign rance. He don't know friend from foe. Let me enlighten skip this paper of mine, and go on to the next. 1 pass the birds, who are worthy of a paper

to themselves, and go to the insect friends; though I cannot pass the toad, because he is to big too overlook. Next to the bird, he the rest. The largest, a patriarchal gentleman toad, exhibits at times, astonishing and active; in the afternoon, he is squat, rotund and lazy. The laziness is due to re-As is generally well known, the carnation pletion. Yesterday afternoon I came upon hay be propagated from seed, cuttings, or him where he was enjoying ease with digniy under the grateful shade of a tomato-plant. Usually he scattles away at my approach, longest leap was not above an inch. He refrog, who if I remember rightly, was handicapped in a race by being loaded with small

> he had a dropsy. The number of insects a toad will destroy this year; for I was fool enough to use raw to the number of seven or nine, according to

> Everyone knows the aphides-the little green or brown plant lice that infest the a winged female of viviparous habit, light ther plants at times. Your best friend and I the body, and translucent wings. Genera their direct foe is the lady-bird, the little red | tions of winged males appear toward the end beetle with black spots, with whom every of summer. These are smaller than child is familiar. The beetle is not very the viviparous females, and their voracious, but her offspring are. The lady- wings are larger and more upright. bird lays an egg in each aphis, where it is Their color is dark or brownish. At the hatched. E ch larva eats the aphis, literally same time, the wingless egg-laying females of lady-bird, with only two black spots, who original wingless viviparous female, the is quite as good a slayer as the other fellow. Theu there is a black one, who is in the peculiar mealy powder which distinguishes same way destructive to the lice and scaleinsects infesting the bark of trees. He is progeny. black, with two red spots on his wing covers. Though he wear different colors he is equally worthy of favors. But I cannot speak a good word for another and bigger lady-bird, with a dusky yellow body, dotted with black. He infests your melons and squashes. Go for him. He is a thief and a robber.

Fortunately for the gardener, these planton a grape leaf, looking like a collection of minute mourning pins with small heads, re- as before. spect them. They are the eggs of that very lace-fly. The parent insect is of a light green color, with golden eyes, and delicate gauzy wings, by which you may recognize him. Should you chance to crush one with your fingers, there can be no mistake, for the smell is sickening.

A queer fact about aphides is that they add to the luxurious enjoyment of the ant. Where the plant-lice are you may see the ant running up and down the twigs, especially of the grape-vine, and apparently holding friendly confabulation with the group of aphides. They don't hurt the plantlice. Not a bit of it. As soon expect a dairyman to cut the throats of his best Alderneys. The plant-lice, especially on the grape-vin', exude a sweet juice of which the ants are very fond.

Budding when the Bark Sticks.

Mr. W. Strong, a fruit grower of Middlesex Co., N. J., says, in the Country Gentleman, that if the bark of a tree to be budded does not lift easily, instead of waiting till another season for grafting, one may cut his bud with its shield of bark and wood, just as if he were going to insert it in the ordinary way, and without removing any wood from it, and apply it by as neatly fitting an operation as possible, to an excision upon the stock, nearly identical in form and size with the one made upon the stick of buds in removing this bud to be transplanted. Mr. Strong says: If the bud thus placed upon this excision does not fit it which will usually answer very well. If the stock be but one year old, let the excision be by removing from it one of its buds, with its shield of bark and wood, which may thus be almost a counterpart to the place on first rate condition. The favorite method transplanted was removed, and an exact fungus attacks.

bed for this bud. Theoretically and practically, there is a supply of vegetative force stored up in the wood of the stock, under the germ of the bud removed, that gives a grand send-off in the spring to this substituted stranger, by way of maternal adop-

Where the stock is somewhat larger than the stick of buds, the excision will be too large to be covered neatly by the bud. Ir this case two buds may be laid upon it, side by side, and fitted together by cutting a portion from the inside edge of each shield of bark and wood so as to cover the whole cut surface, being careful to fit the bark edge of the shield of the buds, or bud, in every case to the bark edge of the cut or bed made on the stock-for there is where the union must take place, if at all.

When thus fitted to the stock the bud, or buds, must be firmly tied in place, as in ordinary bud ting, and finally covered everywhere but upon the bud or germ itself with grafting wax. I always use thin strips of roffia for tying, and liquid grafting waxwhich any one can make-applied in a cleanly way, and most expeditiously and effectively, with a quarter-inch painter's sash brush. Tue operation will usually fail if waxing be omitted.

This method of budding is a beautiful and successful operation. It comes to our complete relief in all cases of checked or arrested growth in summer or fall, by leaf blight, drouth or other cause. If on putting strip or peel, banish your vexation (pardonable under the old system) and resort to it at once. I developed it many years ago out of the necessity of the case in this red shale and drouth-doomed section. It is so simple and obvious that it would seem it must have occurred to every one interested in the subject. It may well be that many of your readers are familiar with it, yet I have never seen it described or practiced elsewhere If known to others, it certainly is not so widely known as it should be. It can be performed with equal success in spring, largely superseding other modes of grafting small stocks.

The Plum Aphis.

The plum aphis (Aphis pruni) is sometimes found upon apple, peach and apricot trees, though it pays its respects mainly to plams and damsons. Sometimes it appears before the blossoms have fallen off, but usually just after blossoming. It then checks leaves and by choking them with excreta, and a peculiar mealy powder which exudes shot. My big toad was evidently loaded to from its body. After a time the leaves curl, grow rusty and fall off, while the fruit inexperienced observer would kave supposed is stunted and flavorless. Early in the spring wingless females, or large green lice, appear upon the leaves. These are the diin a day seems almost incredible. I honestly rect product of the eggs deposited in the autumn upon the stems and branches. reveals the wing cases, and some vellowish markings upon the upper part of the body. From this pupa comes the perfect insect,

"out of his skin." There is another kind appear, not so large or so dark green as the founder of the race. These also lack the the old grandmother and her immediate

These winged females and the males pair. and little shiny black eggs are laid in October, gummed firmly to the rings of bark at the base of bud-bearing twigs, as well as in the rings about the buds themselves. These eggs may be detected without a glass, but no thorough fruit-grower or market gardener should be without his magnifier. Frost and lice have a number of enemies besides man. cold do not affect these eggs. Hatching in One of them, a lace-winged fly, begets larve the spring depends upon the weather. After who destroy these pests by the hundred, ten days of life, the viviparous females, the Should you see an apparently minute fungus direct fruit of the egg, bring forth the first generation and the mischief goes merrily on

In gardens the eggs may be removed from the branches by solutions of soft soap in water, with soap enough to make the mix ture adhesive, applied to the infested spots with a stiffish brush. Or simply rubbing the spots with a hard brush, or with a thick glove, would be effectual in destroying the eggs. But these methods might be impracable for large plantations. Another method would be to wash the trees which had been infested in summer, and on which egg-laying females were detected in October, in order to prevent the deposition of eggs. To destroy these females is to destroy the evil at the root. The most practical remedy is to syringe the infected trees when the blossoms are fallen and the young fruit has firmly set. The best mixture for this purpose (as recommended by Prof. Whitehead) is seven to eight pounds of unadulterated soft soap to 100 gallons of water, fortified with the extract from five pounds of quassia chips. It is believed also that a composition of petroleum and soft soap, in the proportion of half to three-quarters of a gallon of the composition to 100 gallons of water, would be effective. Washing is desirable, not only to save the present crop, but to put a stop to progressive ravages of the trees.

G. GOTT, of Arkona, Ont., says that as soon as active growth of the vines has commenced in his vineyard, he orders from 50 to 100 pounds of flowers of sulphur. When the and what falls to the ground is not considered wasted. Sulphuric acid gas is produced by the action of the sun on the sulphur, as plainly evidenced by the senses. A second application is made two or three weeks later,

Horticultural Notes

For the first time in three or four year, peach growers in Ontario have good crops of

EDGAR SANDERS says the best time to make an asparagus bed is in the spring, using twoyear-old plants if the planter is in a hurry to eat asparagus.

IF you plant your tomatoes in too rich soil or too thickly, you will have any quantity of vines and little fruit. Plant in a sandy soil not in rich loam.

It is said that the California canning e tablishments are unable to take the orders which eastern dealers in canned goods desire to place with them, owing to want of facili ties. The factories are running night and day, but the great difficulty is in securing la

WESTERN Michigan fruit-growers are find ing lots of money in their orchards this year The Benton Harbor Palladium says Lyman Carpenter, of Covert, sold the apples in his orchard for \$800, and L. Benton sold 100 bar rels for \$150. Good results are reported from spraying the orchards last spring, the fruit being much less wormy.

PROF. BUDD advises the mounding in th fall of newly-set trees with earth for the first three years after setting the orchard. It protects from the possible barking of the tems by mice, and helps materially to protect the tender seedling roots in the firs stages of growth and extension. In the colder our knife into the bark you and it will not portions of North Iowa, and in Dakota, Minnesota and Manitoba, it will pay to mound the stems well up to the branches for the first three years after setting. It should never be forgotten that the newly-set tree will not endure the dry freezing of winter as perfectly as it will when it has made a deep extension of root, hence the mounding should never be omitted.

> A CORRESPONDENT of the Germantown Telegraph says: "Everyone knows how dif ficult it is to sow seeds in small gardens with regularity. Too many will fall in some places and too few in others. Where gardens are large enough there are drills which may be employed to great advantage; but in other places drills do not pay. In England they have hand-drills made like bottles, with tin slides so graded as to suit seeds of any size, just as in regular drills. Any one can make these garden-sowers for himself by grading corks to a bottle. Some seeds, like peas, may have no cork. The seeds in a bottle with the neck about half an inch in diameter will sow peas just about wide enough. For smaller seeds holes can be cut in the cork to suit the variety. Some seeds of course could not be sown by a contrivance of this kind, carrot and salsify for instance: but there are many which could, and this is so far a gain."

THE nature of plaster is to attract moisture rom the atmosphere, and if any nitrogen exists therein it will be absorbed and held fo plant use. Therefore for the reason that i absorbs moisture and retains it, it is plain to see that it is best adapted to sandy or dry soils, and is not adapted to moist soils for the reason that dryness and warmth are required instead of moisture and its accompanying coo condition. So, too, the potato requiring cool moist soil-not wet-when planted when the soil would be dry in hot weather, would be benefited by plaster; but on the other hand, corn being a crop that requires hea for its maturity would not be benefited by any application that would tend to keep the soi moist and cool. It is these varying wants and conditions that must be consulted in deter mining the wants or necessities of crops in all applications of fertilizing material.-German

Boils and pimples and other affections ar ing from impure blood may appear at this season when the blood is heated. Hood's Sarsaparilla removes the cause of thes troubles by purifying, vitalizing, and enriching the blood, and at the same time it gives strength to the whole system.

Apiarian.

Preparing Bees for Winter.

Bees begin to make preparations for win ter somewhat earlier than is generally sup posed. In preparing for winter, as indeed in all other matters pertaining to beekeep ing, apiarians ought to adopt methods of management as nearly as possible in agree ment with the instinct and habits of the bees. In a report recently issued by the de partment of agriculture on the observations and experiments made under the direction of the entomologist, occur some notes of in struction on this subject.

It has been found a good practice to wider the spaces between the comb frames near the close of the honey-gathering season in order that the bees may, by elongating the cells, place a large share of the winter stores above the cluster. When bees build their own combs after their own design, as in box-hives, spaces are left between wide enough to admit of elongating the cells, in order that a large share of the winter stores may be placed in top of the hive, easily ac

cessible in the severest weather. As soon as the storing of surplus honey is done the condition of every colony should be examined, the amount and character of the winter food ascertained, the number of comb frames, and the size of the apartment should be determined by and adapted to the wants of each colony. After the supply of winter stores has been equalized among all the colonies, if the supply is insufficient, feeding should be done before advent of cold nights.

Bees expected to perform the function of hibernation should not be too old, nor yet too young. Both queen and worker bees ought to be in full physical vigor. The bees constituting the colony, when placed in win ter quarters, should be such as are hatched after the midsummer working season is pas and before the bees cease flying freely in the

Toward the close of the working season the workers instinctively cease stimulating the queen for oviproduction; gradually the bees cease flying and the cluster is formed for the winter. After the cluster is formed berry forms and shows its proportion, early the colony should remain undisturbed. If on a dewy morning, the sulphur is applied at the bees are to be packed in the summer at both ends and both sides, it can at least the rate of 25 pounds to 100 large vines. The stand the work must be done with care and application is made by hand, throwing it up- without disturbing the bees, and before the on the leaves and fruit while wet with dew. temperature at night reaches the freezing point. If the bees are to be placed in a clamp or in a cellar or winter repository, great care should be taken not to disturb the cluster when the hives are removed from the Besides these there is an air shaft opening ricots, nearly his entire crop, and all are in the stick of buds from which the bud to be lambers are the best coverings for winter blankets are the best coverings for winter

Wool prevents the radiation of heat and permits the escape of moisture, thus securing warmth and dryness. Hives should be set 18 inches above the bottom of the cellar or winter repository, and in tiering them up one above another, it is better that they rest on a rack prepared for the hive rather than

one upon another. The Editor of the Canadian Bee Journal has been publishing the methods of wintering practiced by some apiarists. He sums up some of the more important points of his own practice as follows:

"When we prepare our bees for winter we examine each colony and give them from four to eight combs, according to their strength. We select the combs havstrength. ing the best sealed stores, and if they have not sufficient to keep them we feed them on sugar syrup until we feed them on sugar syrup until each contains from twenty to thirty pounds. We see that they all have good fertile queens (young ones if possible), and suf-ficient stores sealed to carry them through until 1st of May or longer if necessary, plenty of bees, and all in good shape for wintering. This should be done at least three weeks or a month before they are set into winter quarters. They should not be disturbed after they are once arranged. Disturbing bees late in the fall, and tinkering with them means disaster. We leave then and winter begins to show itself. We then place them in the winter repository, remov ing the lids, and leaving the entrances wide open, until they are returned to their summer stands. Keep the temperature about 45°. Would rather have it 50° than 40°. We always keep our repository dark."

Catarrh Cured.

A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a prescription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Prof. J. A. Lawrence, 212 East 9th St., New York, will receive the recipe free of charge.

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Variable appetite: faint, gnaw

UNSIGNSIA ing feeling at pit of the stomin the mouth, low spirits, general prostration.

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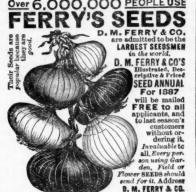
Scrofula is caused directly by impurities in the blood, usually affecting the glands, often resulting in swellrged joints, abscesses, sore eyes, hiotch ns on the face or neck. BULL'S SATSA-PARILLA, by purifying the blood, forces ine im purities from the system.

Through the Kidneys flow the waste

Kidneys fluid containing poisonous matter, the Kidneys do not act properly the matter is not act and and and act are matter is not act and and act are matter is not act and and act are matter is not act and act are act and act are act are act and act are act are act and act are act and act are act and act are act are act and act are act and act are act are act and act are act and act are act and act are act are act and act are act and act are act are act and act are act and act are act and act are act and act are act are act and act are this matter is retained and po sons the blood, causing pain in the small of the back and loins, flushes of heat, chills. BULL'S SARSAPARILLA acts as a diuretic. causing the kidneys to resume their natural functions.

By Irregularity in its action of By Irregularity in its action or suspension of its functions, the bile poisons the blood. causing aundice, sallow complexion, weak eyes, billous diarrhœa, a languid, weary feeling. These are re-lieved at once by the use of BULL'S SARSAPAR-

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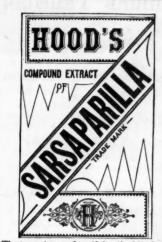
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†P. M. Le've Arr'e †A. M. P. Z.

5 40 ... Detroit ... 11 00 9 19

4 10 ... Port Huron ... 11 00 10 30

*A M. ...

6 50 ... St. Ignace 1 ... 8 30 5 30

1 00 ... Marquette *2 05 10 00

1 45 ... Negaunee 2 ... 1 15 9 15

1 54 ... Ishpeming ... 12 50 9 05

5 25 ... Houghton 3 ... 9 20 6 00

6 34 ... Calumet *8 06 4 26 1 00 Marquette *2 05 1 45 Negaunee 2. 1 15 1 54 Ishpeming 12 50 5 25 Houghton 3 9 20 6 34 Calumet *8 06 P. M, A. M. Connections-[1] Via M. T. Co.'s boats, with Michigan Central and Grand Rapids & Indiana

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DETROIT, MONDAY, SEPTEMBER 19, 1887.

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pended in any other direction.

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WHEAT.

The receipts of wheat in this market the past week amounted to 199,077 bu., against 290,810 bu., the previous week and 300,755 ba. for corresponding week in 1886. Shipments for the week were 316,305 bu. against 196,074 bu. the previous week and 125,875 bu. the corresponding week in 1886. The stocks of wheat now held in this city amount to 196,074 bu., against 770,037 bu. last week and 1,923,675 bu. at the corresponding date in 1886. The visible supply of this grain on Sept. 12 was 31,210,890 bu, against 30,687,-127 the previous week, and 44,872,030 for the corresponding week in 1886. This shows an increase from the amount reported the previous week of 523,763 bushels.

The market has ruled quiet all week, and if there was a spasm of strength noted it was always followed by depression and weakness. Values have weakened on both spot and futures, and the week closes with more sellers than buyers at the decline. Sales on spot and futures in this man ket the past week were only 997,000 bu. less than half what they should be in ordin ary years. But receipts are light, farmers not being willing to sell at present prices, and the visible supply does not show the increase usual at this season. The Chicago and New York markets have also declined slightly during the week, closing dull and inactive. Cable advices were also unfavorable, the Liverpool and London markets being quoted dull.

The following table exhibits the daily clos ing prices of spot wheat in this market from Sept. 1 to Sept. 17th inclusive:

Bept. 44 61 68 64 64 64 65 65 65 65 65 65 65 65 65 65 65 65 65	8 6 10 18 18 14	 		No. 1 White. 78% 78% 78% 77% 77% 78% 78% 78% 78% 77% 77	No. 2 Red. 7414 7414 7416 7416 7416 7416 7416 7416	1	No. 8 Red. 78 78 78 78 78 78 78 78 78 78 78 78 78
46 66	16	 	 	76% 76%	73%	-	72 7154
For				closing	prices	on	-

Nov. 76 75% 7514 78%

7514

The past week has been an unusually dull one in the grain trade. Several times there was an apparent improvement in the tone of seports, but this was always followed later by depression and weakness. The movement is light from interior points, but the demand for export has fallen off considerably. This was to be expected, now that the European crop has been secured, and the decrease will continue for some time, with the probable effect of increasing the visible supply materially if farmers decide to accept present prices and market their crop as freely as usual. This we do not look for. s in the Northwest the spring wheat is undoubtedly light, and with present prices farmers could not sell and pay the expense of putting their crop into market.

Foreign markets show little change, bu markets are quoted weak and dull. Russian wheat is said to be offering in the STATE JOURNAL OF AGRICULTURE. English markets at prices below those asked by American shippers. If so, the farmers of that country must be accumulating

Upon the whole the present is a good time not to sell. The market cannot get worse, and there is a good chance for a considerable improvement. We hope to see prices much better than at present before the new year comes around.

The Liverpool market on Saturday was quiet with light demand. Quotations on American wheat were 6s. 0d.@6s. 1d. per cental for California; 5s. 11d.@6s. 0d. for No. 2 winter, and 5s. 11d.@6s. 0d. tor No. 2 spring.

CORN AND OATS.

CORN. The receipts of corn in this market the

past week were 20,416 bu., against 13,775 bu. the previous week, and 10,138 bu, for the corresponding week in 1886. Shipments for the week were 4,873 bu., against 10,254 bu. the previous week, and 6,867 bu. for the corresponding week in 1886. The visible supply of corn in the country on Sept. 10 amounted to 7, 106, 089 bu, against 6,836,850 bu. the previous week, and 13,633,865 bu. at the same date in 1886. The visible supply shows an increase during the week indicated of 269,239 bu. The stocks now held in this city amount to 13,975 bu. against 10,502 bu. last week and 1,624 bu. at the corresponding date in 1886. The market has slightly improved during the week in consequence of light stocks and decreasing receipts. Still there is no disposition on the part of buyers to invest to any extent either for spot or futures, and speculative de lings are very light. Quotations here are 44% for No. 2 spot, and 44% for September derivery. No. 3 spot sells at the tone was greatly improved. Holders 4414c per bu. It is believed by many that the crop will finally turn out better than anticipated in many of the corn States, but we cannot believe that it will be large enough to keep values down to their present range. and think prices must inevitably advance during the crop year. The manner in which all kinds of stock is being forced into market all through the west is a sure sign of how farmers regard the outlook. At Chicago the market weakened on Friday and declined a few points. On Saturday it dropped again, and at the close was 11/6c be low last week. Spot No. 2 sold there on Saturday at 40 % @ 40 % c, September delivery at 40%, October at 40%c, November at 41c and May at 44%c. By sample No. 2 yellow sold at 421/6@428/c, 418/c for No. 3 vellow, 41@41%c for No. 2, and 40%@ 41%c for No. 3. New York was dull and heavy on Saturday, with prices showing a decline of 1/4@1/4c, closing at lowest point reached. At Liverpool corn was dull on Saturday for both spot and futures. The following are the latest cable quotations: Spot Try it, and see if you do not get more for mixed, 4s. 21/d. per cental; September, your money than for an equal amount ex- delivery, 4s 21/d.; October, 4s. 21/d., and November at 4s 3d.

OATS.

The receipts at this point for the week were 22,080 bu., against 29,590 bu. the previous week, and 33,038 bu, for the corresponding week last year. The shipments for the week ere 16,799 bu, against 35,292 bu, the prev ous week, and 47,565 bu. for same week in 1886. The visible supply of this grain on Sept. 10 was 4,387,518 bu., against 4,734,085 bu. the previous week, and 4,627,639 at the corresponding date in 1886. The visible supply shows a decrease of 346,567 bu, for the week indicated, Stocks held in store here amount to 21,288 bu., against 32,038 bu. the previous week, and 25,465 bu. at the corresponding date in 1886. Oats are quiet but steady, with prices a shade higher than a week ago. No. 2 white are quoted firm at 30c per bu., and No. 2 mixed at 27c. Business is largely of a local character, and any improvement in the shipping demand would make a firmer market, as receipts are not large. At Chicago oats closed dull ow ing to the weakness in corn, but slightly higher than last week. Spot No. 2 are quo ted there at 25 1/4c, September delivery a 251/c, October at 251/c, and May at 291/c. Sales by sample were on the basis of 251/4@ 26c for No. 2 mixed, 27@271/c for No. 3 white and 27% @28c for No. 2 white. The New York market is dull, and values show a decline from the prices of a week ago. Quotations there are as follows: No. white at 34% @34%c; No. 8 do at 33% @33%c, and No. 2 mixed at 32% @33c per bu.; white western are quoted at 36@ 40c, and mixed do. at 33@341/c per bu.

DAIRY PRODUCTS.

BUTTER.

But little change has taken place in the butter market since our last report. Prices rule steady, with a fair quantity of good stock offering. For such butter there is a good demand at 16@18c per lb., with gilt-edged dairy commanding a cent or two more. In creamery there has been a fair trade at 24@25c per lb. More really choice dairy could be sold if it was obtainable. At Chicago the market is quiet and easy. Fancy creamery and choice dairy butter was in moderate local request, but everything else was slow and stocks are accumulating, except that packing stock was taken readily. Fancy set milk creamery, 22@ 23c per lb; fine Iowa, Wisconsin, and Illinois do, 18@20c; fair do, 16@17c; medium do, 14 @15c; low grades, 10@11c; fancy dairies, 16 @18c; fair to good do, 131/@15c; and ordinary fair to do, 11@12e; common and packing stock, 12@13c; grease, 9c. The New York market has ruled dull all week, with the trade in an unsatisfactory shape and values lower. The Daily Bulletin says of

present a dull and unsatisfactory appearan all the week, and with supplies quite liber al and stocks steadily accumulating, with prospects of more or less deterioration in quality by holding, receivers have shown more anxiety to realize and offering concesis wherever they thought it would attract attention, even on the finest goods, while all grades below fancy are practically ower and uncertain. A few special marks of gilt-edge Western creamery, which are kept for a regular trade and not offered on the open market, reach 24c from buyers w want to run on some uniform quality, but strictly fancy goods are freely offered on the

there is a drop to 19@20c, and free sellers at that, including some lots that are almost fancy. ncy. State creamery pails have shown ther accumulation, and 24c, though asked, is an extreme figure and can easily be shaded by close buyers. Western packings have ruled very dull all the week, the foreign lding out any inducements to exporters, and the continued absence of de mand has caused a weaker tone, and stock s offered at lower prices, without resulting in attracting any unusual attention.'

Quotations in that market on Saturday were as follows:

MAGININ STOCK		100	
Creamery, State, pails, fancy		400	
Creamery, State, tubs, fancy		4@2	4
Creamery, prime	19	@3	9
Creamery, good	18	@	
Creamery, fair	16	@1	7
State dairy tubs, fancy	23	0	
State dairy, tubs, good	50	@2	
State gairy, tubs, fair	18	@1	
State dairy tubs, ordinary	16	@1	
State dairy firkins, good to prime	18	@2	1
WESTERN STOCK.			
Western Creamery, fancy	23	623	4
Western imitation creamery, shoice	18	0	
Western do, good to prime	16	@1	7
Western do, ordinary	15	@1	534
Western dairy, fine	17	0	-
Western dairy, good	16	0	
Western dairy, ordinary	14	@1	5
Western factory, June firkins, choice	16%	6 201	
Western facctory, June firkins, good			
to prime.	16	0	
Western factory, June tubs, choice	164	600	
Western factory, June fair to good	16	0	
Western factory, current make,		-	
prime	16	201	314
Western factory, ordinary	13	0	10
CHEESE.			
The market is less notice and sh	0.100	901	na

The market is less active, and shows som symptoms of weakness on account of the unfavorable position at other points. So far no change has taken place in prices, but it is safe to say values will be shaded if the trade does not improve at leading points. Quotations here are 12@121/c for full cream Michigan, 10%@11c for Onlo, and 12%@ 13c for New York. At Chicago an excellent local trade has kept stocks of good cheese well cleaned up and values steady. Nothing is wanted but fine goods. Q totations are as follows: Choice full cream cheddars, 11@111/c: flats(2 in a box), 111/@111/c per lb.; and Young Americas, 11% @12c. The New York market, though irregular early in the week, finally brased up, an i at the close were enabled to secure a shade higher prices on choice makes, and feel more hopeful than for ten days past. The volume of business, however, is not up to expectations, and shippers are inclined to wait developments before making any large purchases. The Liverpool market rules steady at the same figures as a week ago. The N

Y. Daily Bulletin says of the outlook: "The whole thing therefore seems to settle itself right down into a waiting market. against the decision as to whether buyers will come in and break the sort of dead-lock by submitting to rates asked, or whether factorymen will finally come to the con clusion that they have a pretty good thing in any case, and let their acc in order to make room for the fall product. If anything, the latter view of the situation is most generally accepted of late, though no one seems to think a very heavy shrinkage on cost will be necessary in order to open the outlet. At the close to-day the market remains quiet and without specially noteworthy feature except that the bulk of the fresh supply will be sold off and prices maintained steadily on all really perfect quality goods, white and colored now selling close together, or at the best only about 1/3c premium on the latter. There is also a little better showing for the home trade, and that encourages some operators who cater to that outlet."

Quotations in that market Saturday

Quotations in that market Saturday were
as follows:
State factory, fancy, colored 11% @11%
State factory, fancy, white
State factory fair
State factory, light skims, fine 04 20 94 State factory, part skims, good 84 20 9
State factory, part skims, fair 8 @ 8%
State factory, skims, ordinary 7166 71/2 State factory dead skims 21/2 4
Ohio flats, fine 11 @
The Liverpool market is quoted steady,
The Liverpool market is quoted steady,

with new American cheese at 56s. 6d. per cwt., the same price as quoted one week

WOOL.

While it cannot be said that the eastern markets have improved to any extent, vet it s apparent that there is a firmer feeling mong sellers, and the belief is becoming eneral that the worst days of the wool market are over for some time. The Boston Commercial Bulletin, in its review of the market, says:

"There is a slightly firmer feeling and he trade feel somewhat encouraged. There have been some fairly large sales this week, out where a large sale has occurred it has peen to a manufacturer who has money on and Where it is necessary for the pur chaser to borrow money, the present co tion of the money market renders him rather chary. Holders of wool that have kept their wool until the present time seem more dis ed to hold it firm. It is expected that the improved condition of the goods market will have a good effect upon the wool mar-

The worsted manufacturers feel a little easier and our yarn manufacturers wh down when only 70 cents could be obtained for 36's wouldnot start their mills until 77% cents could be obtained. They now have orders for all they can manufacture the next three months at that price. If the worsted industry starts up it will improve the woo

Fine wools are doing better, or at leas are held more firmly. Ohio and Pennsylvania XX wools are quoted in that market at 33c, Ohio X at 32c, Ohio No. 1 at 36@37c, and fine Ohio delaine at 35c. In Michigan wools quotations are 30@31c for X, 33@ 34c for delaine, and 35@36c for No. 1. Foreign wools are quiet, stocks being light and of poor quality.

At Boston the past week the sales aggre gated 1,351,700 lbs. of domestic and 70,500 lbs. of foreign, as compared with 1,673,500 lbs. of domestic and 50,000 lbs. of foreign the previous week, and 4,410,800 lbs of domestic and 410,000 lbs. of foreign during the corresponding week in 1886. The aggregate receipts in that market the past week were 7,747 bales domestic and 1,620 bales foreign, against 4,805 bales domestic and 2,158 bales foreign the previous week and 5,414 bales domestic and 1,511 bales foreign for the corresponding week in 1886. The New York market has also shown a lisposition to firm up under improved con-

U. S. Economisi says of the market: "The active movement in woolen and worsted goods during the month of Septem-ber thus far has been very encouraging to the trade in general and operates as a bar-rier against the downward tendency of the staple. This is well, for the wool trade verywhere in this country has been sluggish nd depressed for the past three months, and ery heavy losses have been sustained. he parties who bought wool at the time of nearing sheep to any extent, and who have een free sellers since, are heavy losers, not

ditions in the woolen goods markets. The

adapted to the wants of manufacturers. On all the Ohio and Michigan wools there is a loss of 2@3 cents a pound, an 1 21/24 cents a pound medium Texas, California, etc. extra choice fleeces, which brough t39 cents cash on board the cars in the west, and ought to bring 42 cents on the seaboard to pay a fair profit, can only be sold with lifficulty at this price on time.'

This emphasizes what we have before remarked, that those who sold in June or early in July did a good thing. The Philadelphia Textile Association's estimates of the wool clip of the country this year is 261,000,000 pounds, including 209,000,000 pounds unwashed and 52,000,000 washed, as against 282,000,000 pounds reported from the same source last year. This statement shows a falling off of 21.000,600 pounds as compared with 1886, and a loss of 33,000,000 pounds since 1884 is announced.

In its review of the markets the past week Bradstreets' says of wool:

"Business continues of moderate proportions in all the Eastern markets. Prices are well sustained on the basis of the last two or three weeks, and though they are in buyers' favor there are no symptoms of any further decline. In some quarters, indeed little improvement in tone is reported. Most of the manufacturers who take supplies now call for prompt shipment, indicating that stocks at the mills are relatively small. Still there is no general disposition to depart from the long-continued and very suc cessful policy of buying for near-by requirements. A good deal of wool, particularly the finer de escriptions, is still held in the country by farmers or speculators and is not pressed for sale. These sorts are as cheap as they have been for several years, and comparativels cheaper on the seaboard than in the country. Wool which is selling for in the country. Wool which is selling for 33@34c in New York and Boston is held at 1@32c in Ohio, at which price, after paying all expenses, there can be but little profit to

The London wool sales are progressing favorably for sellers, and all desirable wools are selling well up. Americans are not bidding, as prices are too high."

Current quotations for leading descrip-

arons or moot the the train ast in a	pomparison.
with a year ago:	
Sept. 17, '86.	Sept. 16, '87
Ohio and Pennsylvania X 32@33c	31@32c
Ohio and Pennsylvania XX33@35c	32@33c
Ohio and Pennsylvania XX	
and above	33 734c
Michigan X 31@32e	29@31c
Fine Ohio delaine36@37c	35 736c
No. 1 combing 38c	37@33e
Texas spring, 12 months23@26c	20 7250

THE AMERICAN SHORTHORN HERD-BOOK.

Volume 32 of the American Shorthorn Herd Book has reached us. It is a large volume, containing 1,089 pages besides at appendix. The pedigrees are materially bbreviated, and mide as concise as pos sible. The sire, dam, grand-dam and sire of grand-dam are given, and then the im ported cow to which the animal traces The numbers of bulls run from 78544 to 84235. M'chigan is largely represented in the volume, and very cred tably too. To m-mbers the volume is sent free upon receipt of 25 cents to prepay postage or exress charges. To others the charge is \$3.50 if sent by mail or express, or \$3.25 if called for at the office of the Association. Mentauk Block, 115 Monroe St., Chicago. As we frequently have inquiries as to the cost of the volumes of the herd-book, we give a schedule of prices charged at the Chicago office, express or postal charges not being included, and money must be sent with all orders:

To members. To others. 85 00 And 30 (each)...

A H B, vols 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24 (each)...

B H B, Reprint of Bulls...

It will be noted that volumes 1, 9, 10, 11 and 12 are not included in the above list. They are out of print. As to fees charged at the office for recording, transferring, etc., they are as follows:

over six years...r transferring each bull from S H R, O S H R or E H B..... SHR or EHB.

or certifying to duplicate and returning same with seal of the Association...
or copying pedigree property pedigree and attaching seal. anks for recording, free; for other purposes per 100...

Up to date 7,200 pedigrees have been received for volume 33. It requires 15,000 to fill a volume, and as soon as that number is received volume 33 will be issued. The address of the Secretary is J. H. Pickrell, Montauk Block, Chicago, Ill.

An Apprectative Reader.

SONOMA, Calhoun Co., Sept. 5, 1887. To the Editor of the Michigan Farmer.

I don't suppose it will do any good, and it certainly will not do any harm, to say to you that the MICHIGAN FARMER is certaincame into our house, and I have taken a tiful in the old country." goodly number of them too; among them the Western Rural, Farmers' Review, American Agriculturist, Rural New Yorker, etc. all of which are goed, first-class papers; but I mean that the FARMER suits my wants every household in Michigan. Now, this is no puff, but I do like your paper and appreclate your efforts in trying to make it first class and a clean one. Respectfully, D. HUTCHINS.

Received.

RAND, MCNALLY & Co., the well-known ablishers of Chicago, have issued a pocket nap of Michigan, which embodies a great deal of valuable information about the towns of the State, railroads, express companies and other particulars which everybody, some day or other, wants to know. It is the cheapest thing you can buy for twenty-five cents.

A B C of BEE CULTURE, by A. I. Root, ists annually spend \$50,000,000 in Europe of Medina, Ohio, is a revised edition of this already well-known guide in apiculture, fur nished with new engravings and brought "up to the times" as regards all the new knowledge about bees. Mr. Root is well known as a writer on topics of interest to apiarians, and the novice who wants to know all about bees will find the literal A B C of the matter laid before him. Not the least valuable feature of the book is the method of arrangement by which the reader is able to turn at once to the author's views on any given subject. The book is substan

tially bound in cloth. SWEDEN, which cannot raise corn, has decided to put an import duty upon it. The duty is about 13%c per bushel.

Diehl Wheat.

Тесимаен, Місh., Sept. 12, 1897. To the Editor of the Michigan Farmer. Will you or one of your readers please in form me through your paper or otherwise, where I can buy some of the old white Diehl wheat for seed, and greatly oblige C. BRAMBLE.

We cannot say where pure seed can be got in this State, as it has apparently run out or been mixed more or less with other varieties. If any of our readers have pure seed of this variety they can notify Mr. Bramble.

THE potato crop of Great Britain is very important one, as the consumption of that esculent is probably greater per head than in any other country. This season the area planted to that crop was about an verage, but, as in this country, the crop has suffered severely from the drouth, and it is now announced that there will be a decided deficit in the yield, aside from losses from the rot, of which complaints are being made. This fact will have an important bearing upon the consumptive demand for wheat until next harvest, and indirectly upon prices also, with the probability that the demand will be considerably larger than would be indicated by the yield of wheat alone. Referring to this point a late num ber of Beerbohm says:

"The success or failure of the potato crop has a very important bearing on the wheat trade, and the fact that this year's crop in the United Kingdom is estimated to be about 25 per cent less than last year; that in France the crop has suffered seriously from drought, and is 20 per cent below an average, and that in Germany it is 10 per cent worse than last year, must be regarded as being a very important factor in the protable demand for wheat next season. A de ficit of 25 per cent in the United Kingdom means a shortage of no less than 1,400,000 tons, compared with last year, while in in Pcussia alone the estimated deficiency is equal to 2.000,000 tons. In many parts of England the yield is equal to half a crop, and in Ireland the crop has suffered seriously from drought."

THE Chicago Tribune says that private cable dispatches to parties in that city state that American wheat is held too high in the British markets, as Russian wheat is under selling it. But the business thus far is active enough. A party in the trade figures up that 45,000,000 bu. have left the Atlantic sea board since the beginning of July, and the total is increased to over 60,000,000 bu. by same time. That is equivalent to saving that half of the United States surplus from the crop this year has gone out of the country in the last ten weeks, being only onefifth of the twelve months.

AT this time last year something like half the flour mills in St. Louis were lying idle and the rest were running at a very small profit. Now it is reported that all the mills in that city are busy, most of them hav e orders ahead, and some have even placed business with mills in the adjacent country. A large part of this business is believed to be for export. Its activity is probably due in part to the scarcity of old spring wheat in the Northwest, which has obliged the mapufacturers of standard brands in Minneapolis to advance their prices fully 15 cents per barrel within the last two weeks.

No wonder wool is dull and values weak even if the domestic clip is short. The U.S. Economist says that large quantities of ring vasta thread rasta etc are being impor ed direct to the mills, all of which is almost ready for the cards and needs no garnetting. Some fine stock can be prepared at 55c clean, which is said to be made from fine Australian wool. This is one great cause why manufacturers are not purchasing freely in home markets. They can get foreign stock smuggled through the custom house so cheap under the guise of "waste" that it is a his inducement to secure their stocks in this

SECRETARY STERLING reports the entries of live stock for the State Fair as in advance of those for the fair of 1886. It shows the rapid growth of the live stock in terest in Michigan when three such fairs as he State, Western Michigan and Northeastern can have large and fine exhibits on the same week. Ten or twelve years ago it was all the managers of the State Agricultura Society could do to secure a good exhibit of live stock at their fairs when there was no opposition.

THE Chicago Tribune of Thursday last had the following item: "The receipts of peaches in this city for yesterday amounted to 70,000 baskets. This is much the largest record of any one day in the history of the Chicago markets, and probably of any, not ly the very best paper for farmers that ever excepting London, peaches not being plen

LAST year the spring wheat crop of the Northwest was underestimated, and specu lators lost largely because they backed up the estimates by making heavy purchases the best of any. I would like to see it in It looks now as if the crop is overestimated, and the "bears" may be the ones to suffer THE report of the State Inspector of Salt

for the month of August shows that the product of the State for that month was 467,035 bbls. It is believed the present inspection year will show a total product of 4,000,000 bbls., the largest in the history of this in THE clover crop is going to be a short

one this year, and those who have seed to thresh should see that it is done by a machine that will result in the saving of the most seed. The Birdsell with its latest improvements fills the bill exactly. THE New York Mail says American tour

This is all in hard cash, and is a heavy drain on the country. If this money was spent at home it would be a wonderful help to business men in many ways.

OLIVER'S New Combination Plow will be on exhibition at all the Fairs in Michigan this fall. This plow has been thoroughly tested, and as it makes a saving of many dollars during the year, we ask our readers to look it carefully over.

THE Germans claim to have exterminat the potato bug, which had been giving farmers much trouble. But we will venture the opinion that they will show up again next spring, in good shape for business.

Michigan Weather Service.

LANSING. Sept. 10, 1881 N. B. Conger, Director of the Michigan Veather Service, has issued the following circular:

The question of the amount of the annual rain-fall has become of such importance to the agricultural interests, that many farmers are keeping daily records of the amount of rain-fall.

The reports of this office published since February, 1887, show that there has been an average monthly deficiency in rain-fall, from March 1st to July 1st, of one inch, or over five inches for the entire period.

The importance of knowing how much rain has fallen will be realized when it is considered that one-tenth of an inch of rainfall corresponds to a deposit of about 40 hogsheads to the acre, and of how much benefit a shower will be to the crops. The rain-gauge should be in the hands of

every farmer in the State, so that the amount of rainfall may be accurately determined for each locality. The State Weather Service, to establish

the annual precipitation for the State and to aid the farmers in ascertaining the rain fall of their farms, makes the following propositions: To each farmer who will purchase a rain-

auge, the service will furnish all necessary blanks for recording the amount of rainfall, the time of commencement and ending of rain-storms, and will publish each report furnished this office in the Monthly Weather Review, where it can be easily consulted for comparison.

The rain-gauges will be furnished for \$1.25, the exact cost at the manufactory in New York. The gauge consists of a copper funnel 11/2 inches deep and three inches in diameter, and this funnel sets in a brass tube or reservoir, one inch in diameter and ten inches long. The whole is inclosed in a galvanized iron overflow receiver. The gauges are strong and cannot be easily in-

The time occupied in taking an observation is very small, and consists in ascertaining the amount of rain-fall collected in the gauge by means of the measuring stick, which accompanies each gauge, and recording it, with the time of beginning and ending of the rain or snow on the forms furnished free by this office. The observation can be taken at any regular hour, daily, preferably the shipments from the Pacific coast in the at 2 P. M., and will not take ten minutes'

The value of knowing the monthly and annual rain-fall of any locality in the State. for agricultural purposes, is too well known by the farmers to enlarge on this subject now, and the Michigan Weather Service places this matter before the farmers of Michigan, in the belief that the mutual benefits to be derived will cause each farmer to obtain a gauge at the earliest date.

Every report adds to the value of this work, and farmers can readily compare reports of rain-fall of their own locality.

The Service would be pleased to have fifteen hundred gauges in the hands of farmers by the first day of November, when the winter season fairly begins. All blanks and instructions will be fur-

nished by this office. If you do not desire to take up this matter, please hand this to some farmer who is

Stock Notes,

interested.

MR. J. M. TURNER, of Lansing, has sold to Mr. Asa Bates, Irving, Ohio, two Shropshire ewes of his own breeding and a fine mported yearling ram bred by Mr. Thomas. Barchurch, England.

WE have received the catalogue of Short horns which Mr. J. S. Flint, of Somerset will offer at public sale on Wednesday, Oc tober 19th. They comprise his entire breeding herd of 23 head. The families represented are Gwynne, White Rose, and Stapleton Lass. Mr. Flint guarantees that there are no shy breeders among the females, and that they will be sold without reserve.

MR. W. J. GARLOCK, of Howell, Living ston Co., reports the following recent sale of stock from his flock of registered Shrop-To Geo. Barnhouse, Fowlerville, one ram

To C. Gruber, Fowlerville, one ram lamb. To Phil. Smith, Williamston, one ram

To E. Osburn, Jackson Co., Iowa, shear-Germania Co., Germania, Wis., imported ewe. To Emil Schleicher, Dakota, five ewe lambs, and two ram lambs.

L. W. & O. BARNES, of Byron, Shiawassee Co., report sales from their herd of Poand Chinas, since June 1st, as follows: To Thos. Merrill, Saginaw City, on To E. G. Rust, Saginaw City, one young

To Snyder Bros., Fowlerville, one young To V. Parshall, Parshallville, one young To Amos Parmenter, Vernon, yearling

boar and one sow pig.
To John L. Jacobs, St. Johns, one To Will E. Boyden, Delhi Mills, one boar To F. G. Morrice, Perry, one boar pig. To O. C. Highgate, Canada, one pair pigs. To P. D. Donelson, Swarty Creek, boar

NEWS SUMMARY.

Michigan.

The National Grange meets at Lansing The capsule factory, to be erected at Kalamazoo, will employ 200 hands. An Adrian lady claims a yield of 49 tons o rapes in her vineyard this year.

Gen. Edward Clark, of Ann Arbor, reside since 1827, died last week, 80 years of age. The Michigan Military Academy opens the school year with a largely incre

It is estimated that the fees under the new icense law will bring in about \$10,000 to the redit of the clerks of the different counties. The last rail of the Duluth, South Shere & Atlantic railroad was laid at the "Soo" or the 16th, and the first train followed it close

Lansing Republican: Prof. Johnson, of the Agricultural College, is sustained by golden opinions from some of the best people in the State.

Some of our State exchanges impart an air of culture and refinement to their locals by referring to the village barber as "our ton

W. Dorenburg, of Muir, estimates his crop of potatoes at 1,600 bushels. That quantity will put a tidy little sum into his pocket at

It is said laborers will be scarce for the lumber woods this winter. Heavy teams for lumbering purposes aiready command \$459

Henry Udell, of Marshall, fell from the derrick of a windmill on the 14th, breaking his neck. Mr. Udell was a wealthy farmer and long time resident of the vicinity.

A Mason man who wanted to speculate in potatoes made a trip through the northern part of the State in search of supplies. He didn't buy a tater; prices were too high.

A Kalamazoo firm will give a tea-set worth

\$10 to the lady who exhibits the best loaf of white cake at the county fair. Angel-food is barred, as the parties would find it too un-J. C. Beardslee, of Cedar Springs, was bitten by a pet dog forty years ago. On Sunday, 11th inst., he was seized with convulsions and died in two or three days with every symptom

Reading Telephone; Mr. D. C. Ellsworth raised a potato this season which weighed two lbs, and from one hill he dug 82; he says of them that some were small and others beautifully less."

A branch of the Mutual Publishing House, of Boston, is to be located at Pine Lake, near Lansing, 60 acres of land having been pur chased for a site. Work on the buildings will be at once commenced.

Jonesville Independent: The Jonesville G. A. R. post has made arrangements with the Adrian post whereby the old war-horse Colonel will have no work and unlimited and oats for the remainder of his days. A Tittabawassee farmer thought he heard

the "boom men" in his vineyard the other night and as he had suffered considerably from their depredations, concluded to shoot, from their depredations, concluded to shoot. He did so, and next morning was occupied in skinning his best calf.

Joseph Rue, of Buel, Sanilac Co., has three ewes that reared six lambs last summer. The ewes clipped eight pounds of wool aplece, which was sold for 30 cents per pound. For the lambs he has been offered \$5 a head and for the ewes \$6 a head.

The Bardeen paper mill at Otsego, will. when completed, be the largest of its kind in the State. Most of those who are prominent in the management of the new mill are old and tried employes of the Kalamazoo paper company, which was organized in 1867. The Bay City Tribune intimates that Kala-

mazo is not going to retain her supremacy in the celery trade without a struggle. Bay County is going to do something in that line also. Bay City is already supplied with the home-grown product, which is as fine as "Celeryville's" best. The editor of the Lapeer Democrat has been presented with some bath tickets by the Port Huron Mineral Bath Co. Having an

aversion to water, the editor passes the

oards over to his constituents Personally we shall shun the Marat was assassinated in one and McGarigle lost in another." Charlotte Republican: Two freight trains or the C. & G. T. tried to pass each other on the same track near this city last week, causing the destruction of the engines, nine box cars mashed to splinters and 13 badly broken

Carelessness on the part of the night despatcher at Battle Cresk caused the accident. Damages, \$25,000. Robert McMartin, newsboy of this city, disappeared from his home on Tuesday last and on Saturday his body was taken from the river. At first it was announced he had been murdered, but an autopsy disclosed that the njuries which gave rise to the suspin vere less than supposed and that death was

aused by drowning Dr. Murray, of Flint, is convinced that seection of seed is in accordance with sound eason. He got his seed wheat from a field that yielded 30 bushels per acre, and had it run through the fanning-mill twice at a high rate of speed so as to leave only the heaviest cernels. He will sow two tons of phosphate on ten acres of wheat.

Flint Globe: Charles Parish met with a sad ecident while assisting to move a large boiler rom Hannah's boiler works, by means of ree-inch rollers. Mr. Parish, in kicking one of the rollers, caught his toe under it, and before he could extract himself the weight of the boiler was thrown on his right leg, crush-ing it to a jelly. Amputation was necessary.

Tramps fired a straw stack belonging to the flames spread to the barn, entirely consuming it and its contents. Loss, \$2,300. It is unfortunate that farmers' property is so uch at the mercy of every vagabond who wanders up and down the earth, his hand, like Ishmael's, against all men,

but there seems no redress. At Port Huron natural gas is now us inder the boilers at the waterworks. said that the gas is so abundant that use only increases the flow. A company has been formed to pipe the city so gas can be used in private families. Natural gas is all right in the culinary department of a house, especially in summer, but for winter there is nothing like a good base burning cost store for solid like a good base-burning coal stove for solid

frenzy, in November, 1854, and was sentence to State prison for life, was pardoned by the governor, after 23 years imprisonment. He returned to the world to find it had no niche for him; even his sons, who had inherited his money, had no use for a convict father: he recently returned to the prison and asked to be admitted. He was sent to the prison insane asylum temporarily.

Three young ladies employed in the Tec seh schools spent their vacation at Sand Lake, and went fishing one Sunday very quietly and very sedately. But the fact came to the ear of the school board, who sapiently "took action" thereon, got up a letter narrating the awful breach of morals to be read at the school meeting and otherwise med the wick. chool meeting, and otherwise made the wick ed schoolma'ams think they had committed the unpardonable sin. Wonder if those who ed so judicially are themselves "with-

General.

The 80th victim of the Chatsworth railroad ecident died last Saturday. Ex-Gov. Luke Blackburn, of Kentucky, died at Frankfort on the 13th.

ite disastrous gales on the Newfoundland Banks. A disease among cattle, in the vicinity of Duquoin, Ill., affects the eyes, the animals ecoming totally blind.

Nearly 100 fishermen were lost during the

There were 188 business failures in the United States and Canada last week, against 74 the previous week. Exports of breadstuffs, provisions, cotton cattle and oil during the were valued at \$37,000,000. month of August

It cost Montana \$50,000 last year to pay the ounties allowed by the Legislature for killng prairie dogs and ground squirrels. The wreck of the whaler Amethyst was ound off Castle Rock, in the Pacific ocean, by a

ealing schooner. No traces of her crew of Secretary Bayard can find no grounds on which the United States can demand of Can-adathe extradition of McGarigle, the Chicago

Frank Mason, wealthy farmer and prominent stock-breeder of Walworth, Wis., was fa-ally gored last week by a bull he was leading

A vein of rock salt has been found at Ellsworth, Kansas, which is 165 feet thick and 96 per cent pure salt. The vein is only 705 feet below the acceptance.

At the close of the last fiscal year, the names

The celebration of the centennial annivers ry of the adoption of the Constitution a Philadelphia called 500,000 strangers to the

eity of Brotherly Love last week Wm. James, mining boss at Glen Carbon olliery, Minersville, Pa., was murdered by a ellow employe, who concealed himse ushes where his victim must pass. The government claims the Northern Pacific

ailroad Company has out \$2,000,000 worth of timber from the public lands. wants them to walk up and settle for it.

The new report of the Postmaster General shows there are 94,790 persons employed

who This been empt wet Last water cropped an emost line but of retractions as you time

sed 30 per cent, and blind-

New Orleans, La., an explosion occurred Orieans, and a fire as a f ildren were burned to death versary of Mexican independence extraordinary enthusiasm" and bull-fights. Ten thousand of the

west. Fla., has a sensation. Two ssels are off the coast patrolling it, babitants are curious to know why us favored. It is thought the ob-be to kidnap two Cuban-American ited in a late flibustering ex-

on, of Ouray, Col., shot Elia Day, who fired the jail. The fire depart affairs of the Sioux City & Pacific rail-

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being investigated by a commission-oad was subsidized to the extent of a and a half of dollars by the govern-i has earned expenses and \$410,000 re the interest due, but no payson in speculation, was the sen-

Wall Street some little time ago, accoming to the front again. He ity of the stock of the Northern respach, one of the chief manipula

be collapsed wheat deal at San Fran-ves the bank of Nevada \$6,500,000, 1,000 of which C. F. Reed is guaran-d owns a large block of land in and has wealthy relatives in he persuaded so much cas

last week was a grand affair orgeously decorated, and over from outside were present. In parade 300 floats bearing represen-arious industries, 12,000 men, 3,000 250 bands of music were in line reland and party were present glas, who gave up his practice to be in meed of financial assistance nsive practice has been los health is impaired. Gen. Grant left 1990 in his will, but it is gone, and the would not mind if Grant's admirers send him a check for another five

said that McDonald intends, oes not abandon ber plans in refer he Red River rail ay, to influence ding of the next half-year's sub-Manitoba Government, hoping to e it financially and prevent the it of the contracts for the con-the road from Winnipeg to the

assing over an unfinished portion of nd railroad, west of Leadville, Col., the track slipped out of place on a sh and the two cars containing the cipitated into a ditch. Three

decision of the Supreme Court of Il regard to the condemned anarchist gard to the condended afterensis een respited to allow of an appear ther court, was made public las confirms the verdict of the lowe d the anarchists must hang Nov. 11. ent of the court was unanime must pay the extreme penalty are Spies, Fielden, Lingg, Schwab, Engel her. Neebe, one of those indicted, enced to 15 years imprisonment.

Foreign.

ion occurred at Doncaster, Eng., on dland railroad, on Friday, by which 20 as were killed and 40 injured. h landlords in conference at Dublin last

adopted resolutions denying that rents cessive, or that reasonable abatements en refused during periods of distress. es at Trapani, Italy, were set upon by pulace and one of them was forced to ow the carbolic acid used as a disinfect ing his death. The other two refused ink the poison and were killed by the

nany is angry because a Bulgarian pa laimed that the German vice-consul at ha had been recalled because of scandalou et. The paper ate it; "humble-pie" if f a profuse apology the next day, bu lgarian Government will suppress it: vernment will suppress it to ise German wrath.

Drainage of Swamp Lands.

In view of the large areas of swamp lands this State the following, showing their alue when drained from the Ohio Farmer.

will be of interest to many. One of the finest examples of extensive wamp drainage that has yet occurred in this ountry is at the Scioto Marsh, about ten illes west of Kenton, in the western part Hardin county and near the head-waters the Scioto river. This marsh is about 7 iles long, and from half a mile to four or re miles wide, and contains about 12,000 acres. It has always been under water most f the year, so as to be impassable unless very dry seasons, when a man could pick his way through portions of it, on foot. It was covered with a dense growth of reeds and swamp grasses, and was the home of water vermin and malaria. About four years ago a number of gentlemen conceived he idea of draining this marsh and reclaiming it to civilization and productive agriculture. A company was formed and about 4,500 acres purchased at a nominal figure, as the owner regarded it as almost worthless The tract was carefully surveyed and a main ditch located by the county commissners. This ditch is 50 feet wide at the top, and 40 feet at the bottom, and 8 feet deep, and extends about 9 miles, emptying into the Scioto river at the lower end. The total cost of this ditch was \$59,000, which was assessed upon the lands drained and benefited. lateral ditches were then constructed by the various owners. The Scioto company constructed one of these main ditches every 20 rods, but others located them at various intervals. The entire tract is now thoroughly drained and ready for cultivation, and s fertility is almost incredible to those who have not seen the crops it produces. This is the second year that any part has been brought under cultivation, and its exemption from either drought or excessively wet seasons has been practically proved. Last season was a very wet one, but the water passed off as fast as it fell, and the crops were immense. This year has been an excessively dry one, but the crops are al-

The muck is from 11/2 to 5 feet deep, and immediately below is a stratum of marl 1 to 4 feet deep, which is one of the finest nats the country \$25,000,000 to maintain blind who are public charges. ural fertilizers known, and in some portions of the East is the main dependence for en-

riching the soil. The surface muck is of the best quality known, having sufficient mineral elements for the soil in it to supply the growing crops. Mr. Price has about 60 acres of potatoes,

and he estimates the yield at 250 to 200 bushels per acre. Col. Sage has about 170 acres in potatoes, but he is more modest in his estimate-, and places the yield at 150 to 200 bu. per acre. The potatoes are of the finest quality, of good size, smooth and solid. We ate some of them at dinner. They cook dry and mealy, and there is not a scabby tuber to be found among them. They were selling rapidly, on the ground, at 72 cents per bushel, to dealers, from Dayton, Columbus and of in the same hotel. A mob other places, but the owners were not at all anxious to sell even at such a price. Onions dout to extinguish the fire, and yie'd from 300 to 700 bushels per acre. Col. Sage has 61/2 acres and sold them, in the ground, a few days ago, to a Dayton dealer, for \$1,000 cash. He kept an accurate account of expenses for planting, seed, and cultivation, and it was just \$180, leaving him a clear profit of \$820. We walked over the field, and such a crop! The onions were actually crowding each other out of the

ground. If we estimate the yield at 400 bu. per acre, the field would produce 2,600 bu. At present price, 75 cts., the gross proceeds would be \$1,950, which would give the buyer a handsome profit. One peculiarity of this tract is the flowing

wells. Sink a pipe down anywhere, through the stratum, which lies at various depths. and the water-clear and pure-flows out at the top in a continuous and never-failing stream. One well sunk by Mr. Price flows 200 bbls. per hour. This water supply is reached at a depth of 14 feet and beyond. It is impregnated with iron and valuable medicinal qualities are ascribed to it. Col. Sage says that since the marsh was drained three years ago, not a case of sickness has occured on it, chronic cases excepted. Malaria troubles have been banished entirely.

This account may appear to be exaggerated to some, but we have written only of what we saw, and learned, on the ground. A visit at this season of the year, by any reader, will convince him that our representations are within bounds. The Scioto march today is a practical demonstration of the benefits of drainage, and the projectors ought to be presented with a unanimous vote of thanks from the people of that part of Hardin coun-

ty. They have not only removed a source of disease, but have added millions to the productive sources of the country, and set an example for other localities, -imilarly situated, to profit by. We have no hesitation in saying that, one year with another, the e instantly killed by the steel rails the cars were loaded, and 61 were Seventeen of these will be crippled times as much as the average upland of the

> It is almost Impossible for country people to recognize the dense ignorance as to all matters agricultural and rural from which the children of the London poor suffer. The parson of a London parish asked one of the children who had been boarded out under the new poor law regulations how he enjoyed the change of air and scenery. "Please, sir," said the urchin, "I don't like it at all; instead of giving me milk out of a nice clean tin they squeezes it out of a nasty cow-I seed 'em doing it!"

> > NEW ADVERTISEMENTS.

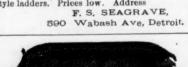
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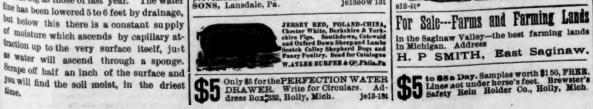
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EDWIN PHELPS, Maple Place Farm, Pontiac, Oakland Co., breeder of Hereford Cattle of mo popular strains. Waxwork 6320 (6250) at head of herd. Stock of both sexes for sale at reasonable prices.

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Galloways.

SHEEP.-Merinos.

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Lapeer Co., breeders of thoroughbred regis-ered Merino Sheep. Stock for sale. mv13-v

J. EVARTS SMITH, Ypsiiann, breeder of the oughbred Merino Sheep, registered in Vermoni Register. Rams and ewes for sale of my own breeding, together with recent selections from some of the best flocks in Vt. Examine before purchasins elsewhere

W. MILLS, Maple Ave. Stock Farm, Saline, Washtenaw Co., breeder of Vermont registered thoroughbred sheep. Atwood ram Peerless at head of flock. Also breeder of Poland China swine. Correspondence solicited.

CARLOCK'S imported and Michigan-bred Shropshire sasep are the popular mutton and wool breed. Oldest established in Michigan. Unexceiled by any. Choicest stock at moderate rates. Wesley J. Garlock, Howell, Mich.

J. LESSITER, Jersey, Oak, and Co., preeder of Shropshire Down Sheep, registered and un-registered; also Shorthorn Cattle. Stock for sale at reasonable prices and terms.

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A. LIMBECK, Dowagiac, breeder of pure bred Poland-Chinas. All stock in Ohio P. C. Record. Breeding stock not akin for sale at reasonable prices. Correspondence solicited.

Richland, Mich.

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W. TUBBS, Delhi Mills, Washtenaw Co., stock for sale. Correspondence promptly an-swered.

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red X owned by L.W. X O. BARNES, Byron,

Flint, - Mich.

of individual merit and excellent lineage; the oldest, largest and best herd in the State.

The blood of

Just now, about 60 grand young bulls, from 15 to 24 months old, also a few very choice imported helfers, and about 30 ones and twos of my own breeding, all at rock bottom prices—in fact no fancy prices asked. Special inducements on car lots to ranchmen. Also a number of Farms on easy terms. Address

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The following families are represented in our herd: Oxford Vanquish, Young Phyllis, Adelaide, etc.



Sired by Proud Duke of Fairview 20730, and Lord Barrington Hillhurst 62431, out of Yeung Mary, Phyllis, Lady Elizabeth, Peri Duchess and Rose of Sharon cows. Also a few cows and heifers. Reliable catalogues always on hand for distribution. WM. CURTIS & SONS, Addison, Lenawee Co., Mich. Addison is on the new Michigan and Ohie Railroad. Farm connected with State Telephone

122 head yearlings just imported from the prize winning flocks of Mansell, Evans Stothers, Darling, J. Bowen Jones, T. Dickens, William Thomas, Thomas Jones and J. E. Farmer.

TURNER & OROSBY, a28-13t**

Lansing, Mich. Shropshire Sheep ! 125 head rams and ewes, imported and American bred, direct from the renowned flocks of Wm. Fowler, Richard Thomas, J. E. Farmer, T. & S. Bradburne. R. Jones, T. Dicken, Jos. Pulley, M. P. Henry, Lovatt Minton Everall, Byrd, Bromley and others. Oldest established flock in Michigan and first on record. Stock for sale.

Poland China Swine a Specialty. ock recorded in Ohio Poland China Record. rrespondence and inspection invited.

Contains about one hundred and eighty-six acres, one hundred and forty of which are improved, balance in timber. A good orchard and good buildings on the place. Situated two miles north and three west of the village of St. Johns, Clinton County. For further particulars and terms inquire of E. B. OARUSS, St. Johns, Mich.

Bulls, heifers, cows and calves of choice milking strains and sired b high-bred bulls. For particulars address

FOR SALE.

BETWEEN THE LIGHTS.

There is a rause between the day and darkness, Between the sunlight and the soft moon

A quiet hour to open memory's flood-gates, And let the past roll back in silent streams.

The daily tasks that weary and discourage, Vanish like mist before the morning sun; The burdens of the day are lifted from the

bearer And quiet comes, just as the day is done. hear the hum of voices, long years silent,

That echoed through the halls of childhood' catch the fragrance of the woodland blossoms.

That grew where happy children loved to

Thear the echo of departed footsteps, The hards, long folded, o'er mine seem t meet:

A cry, with heart all filled with hopeless longing, What is the charm that makes old things so Why must the heart in bitter pain and hunger,

Yearn for the treasures which to-day are When will thy chartening lead me closer to thee!

When shall I truly say: "Thy will, O Lord, not mine?"

The answer, Peace! the loving Father knoweth The human heart in all its s'n and strife; Out from his throne the healing water floweth, Drink from the fountain of eternal life.

He giveth life, love, beauty, all life's sweetness; The happy past will he to you restore; Only its sorrows, sins and human frailties Shall vex and taint thine aching heart no

Serve Him with loving heart and earnest pur-

Press onward with true courage toward the heights. And there with psalms of gladness and thanks

Tell how he comforted "between the lights' -Lou P. Barrett.

LOVE'S FIRST KISS.

All quivering like the tender leaf

I felt unwonted bliss;

My frame shook like an anxious thief Who hears disclosed his tale. Yet in the trembling of my heart

And through the fears that inward start, The lov of Love's first kiss.

Though ki ses fanned my cheek before,

To that they no resemblance bore Which all my soul alarmed;

'Tis true they stirr'd my nature oft, But nothing like to this! They were not half so warm and soft,

So sweet as Love's first kiss. Ah, then the rapture lingered long, And lulled my heart to rest As doth the melody of song

When tunefully expressed 'Mid earthly hopes and fears and strife My heart hath taught me this-

That nothing clings so long to life
As our true Love's first kiss.



Arctic Cold.

A person who has never been in the polar regions can probably have no idea of what cold really is; but by reading the terrible experiences of arctic travelers in that icy region some notion can be formed of the extreme cold that prevails there. When we have the temperature down to zero out freezing to death. Think, then, of living where the theremometer goes down to 35 degrees below zero in the house in spite of the stove. Of course in such a case the fur here?" asked Tad, breaking the little garments are piled on until a man looks silence that followed. like a great bundle of skins. Dr. Moss, of the English polar expedition of 1875 and 1876, among other odd things tells of the effect of cold on a wax candle which burned there. The temperature was 35 degrees below zero, and the doctor must have been considerably discouraged when, upon looking at his candle, he discovered that the flame had all it could do to keep warm. It was so cold that the flame could not melt all the wax of the candle, but was forced to eat its way down the candle, leaving a sort of skeleton of the candle standing. There was heat enough, however, to melt oddly shaped holes in the thin walls of wax, and the result was a beautiful face-like cylinder of white, with a tongue of yellow flame burning inside of it and sending out into the darkness many streaks of light. This is not only a curious effect of extreme cold. but it shows how difficult it must be to find anything like warmth in a place where even fire itself almost gets cold. The wonder is that any man can have the courage to willingly return to such a bitter region after having once got safely away from it, and yet the truth is that the spirit of adventure is so strong in some men that it is the very hard ship and danger which attract

No Cowboys Wanted.

Here is a little bit of advice from a jouranal which knows what it is talking about, the Rocky Mountain Husbandman:

"There is throughout the east a large number of young men who desire to come west to lead the life of cowboys. They have been reading the newspaper stories of their doings, and thirst for the experience. But if they really knew what it was they would certainly cease their longings. The matter of 'painting a town red' might be pleasant enough, but the long hours in the saddle on the range, the drenching by rain, sleeping in wet blankets, etc., can scarcely compensate for the little fun in town once or twice a year. In a business sense it is the most uninviting field we know of. There is at best but few months' work in the year, and the wages are not sufficient to support one the year round, and then there is no demand for this class of labor. There are plenty of native born Montanians who have homes 'n the country and can otherwise engage themselves, when not on the round-up, to do what work is required. At last, but not least, the business is going to the wall, and it is a poor policy to adopt a profession or a trade, the palmy days of which are over. It is well enough for the young Montanian to spend a few months on the range if he wishes, but it would be a poor thing for young America to leave a com'ortable home and come west for a life of so little promise."

Adventures of Tad;

HAPS AND MISHAPS OF A LOST SACHEL

A Story for Young and Old.

BY FRANK H. CONVERSE. AUTHOR OF "PEPPER ADAMS." "BLOWN OUT

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CHAPTER IX.

The spruce-bushes parted suddenly; but, instead of disclosing the form of a ferocious bear, nothing more formidable than the good-humored features of Joe Whitney, adorned with an expressive grin, was revealed. There were traces of recent tears on his freekled face; yet mirth beamed from his eye, and it was evident that the recent punishment had not had a very depressing effect on his animal spirits.

"Thought I was a bear, didn't you, Tad?" he remarked, laughing. And Tad, too much relieved at the prospect of companionship to feel very angry, answered, with a feeble smile, that he was kind of startled, and made haste to change the subject.

"I've got seven trout, but they're awful small," seid Tad, producing his catch, with a rather disconsolate air. Joe started, whistled and then

"Why, you goosie!" he shouted, but so good-naturedly that it was impossible to be angry with him, "those ain't trout-they're chubs!"

Poor Tad felt tremendously mortified, but speedily forgot his mortification in real honest admiration of a string of trout-the largest of which would not weigh quite a quarter of a pound-that Joe brought out, together with an alder pole, from the thicket where he had enacted the bear.

"I dug some bait on the way, and caught these little fellows coming along," explained Joe, as he held them up before his companion's admiring

"Oh, wouldn't I like to catch just one trout!" sighed Tad: and Joe stoutly assured him not to worry-he'd put him up to eatching more than one -perhaps half a dozen-before they returned

"Did it hurt you very much?" inquired Tad, presently, with delicate reference to the cause of his companion's detention.

"The pasteboard wasn't quite low down enough," said Joe, mournfully, and Tad asked no further questions. "Father didn't flog me for just having a little fun with you and Miss

Smith." Joe went on after a short pause, "but because he said I as good as lied when I made her think that you was deaf, and you think that she "Well," returned Tad, hesitatingly,

'I don't know-you didn't mean to say what wasn't true, any way.'

"No," said Joe, frankly; "I didn't! I hate a square up and down lie as bad as the next one; but, come to study on it over, I guess we fellows don't stop to think long enough, sometimes, and lie when we don't mean to; anyhow, I do, and I'm going to try and stop it.

This was quite an admission for Joe. who was generally very chary of acof doors we think it bitterly cold, and if our knowledging his faults. But he had begun to feel a strong boyish affection grees above zero we should begin to talk of for his companion, and spoke more openly to him than he was in the habit

"But what made you so long getting

"Why, after father-got through with me," returned Joe, while a humorous smile began to hover about his mouth, "he set me churning, and went off down town on an errand. Mother she was sent for to go over to Mis Emory's, all of a sudden, and, by gracious!" said Joe, rubbing his shoulders, "I thought my arms would just unhinge out of the sockets before the butter came. Well, Nell, she took the butter down into the cellar kitchen to work it, and forgot to empt' the churn (as mother always does), and whilst she was down there," continued Joe, whose smile had begun to broaden, "I saw father coming up the walk, so what does I do but get hold of the churndasher again. Father, he came in There, my son!' he says, 'I guess you've been punished enough-you can go now, and then he took the churndasher right out of my hand. If mother hasn't got back, or if Nell don't some up-stairs," added Joe, with an irrepressible snicker, "I expect likely he's churning buttermilk now."

As Tad knew rather less than a Hottentot regarding the mysteries of churning, the point of Joe's little joke was not perfectly clear to his own mind. And perhaps, on second thought, Joe might have remembered that the tacit deception practiced toward his father was not exactly in keeping with his professed penitence of a moment or two previous, for he made no attempt to enlighten his companion, but, taking up his pole, said, rather hastily, that he guessed they'd better be getting toward home, as it was considerably

past dinner-time. About half-way down Mill brook were the ruins of an old saw-mill. Here, among the great timbers below the dam, the water made deep eddies and shady nooks, where trout love to

lie in the heat of the day. "Throw in there, Tad," said Joe, pointing to a spot where the dark water rushed around the end of the broken flume like a mill-race.

Tad secretly thought that any trout venturesome enough to trust himself in such a swift current would be swept down stream in a twinkling. But he

Good gracious! had a sturgeon or young whale seized his bait! His line went cutting through the dark waters, and the top of the alder pole bent omi-

Tad knew nothing about playing a trout, and if he had it would have made no difference, owing to his primitive fishing tackle. He pulled vigorously; so did the trout, and "snap!" went the end of the alder pole, leaving Tad in a mad frenzy of excitement, with threefourths of the rod in his hands, dancing madly on the rocks Joe was equal to the situation.



EQUAL TO THE SITUATION.

for the broken fragment, which was floating in sight. Gathering the slack line carefully in his hands, a vigorous tug landed high and dry the largest trout ever caught in Mill brook.

"There!" Joe exclaimed, as Tad regarded his prize in an amazement too deep for words, "you've caught the one real trout you've wanted to-now, I guess we'd better be getting home, without doing any more fishing.'

"All right," returned Tad, mournfully, "but you caught him, after all, Joe." But Joe stoutly asserted that But Joe stoutly asserted that Tad hooked him first, while he-Joeonly helped to bring the big fish safe to land. And, in the discussion of the exciting episode, the walk home was accomplished in a surprisingly short time.

Tad's big trout was baked for supper, and it was generally agreed by the four who partook thereof that the flavor was particularly fine. Tad himself secretly thought he had never eaten any thing so delicious in his whole life. But it is not unlikely that the knowledge that he himself had furnished this important adjunct to the evening meal gave it an additional relish for Tad.

By this time Tad had begun to feel very much at ease with these quiet. home-like people. As they gathered about the open fire-place, with its smoldering back-log, after the teathings were cleared away, and the big kerosene-lamp was lighted, he opened his heart to their kindly questioning and spoke freely of his past life. There was really little or nothing to keep back, for, as I have said, thanks to the memory of his mother's teachings and a natural uprightness of character, Tad had escaped the evil ways which a homeless, friendless boy is so apt to fall into, and, though he had faults in abundance, he was, on the whole, a more upright young fellow than many whose surroundings and advantages had been far more favorable than

"So you're to begin ship's duties to Miss Smith o' Monday-eh, Tad?" remarked the Captain, thoughtfully, to break a little silence which had fallen upon the group.

"Yes, sir," was the reply, "and I do hope she'll like me."

"She'll be hard to suit if she don't," returned Mrs. Flagg, clicking her needles emphatically together as they flashed in and out of the meshes of a blue yarn sock that she was knitting for the Captain. For the good lady, whose heart was large enough to take in at least half a dozen motherless boys and girls, had begun to regard Tad with considerable favor.

"I know she'll like you," said Polly, confidently, as she looked up from the fascinating pages of "Little Women," which she was reading for the first time, while Bounce *lumbered peacefully in

"You just go on and do your duty unto Miss Smith accordin' as you'd have it done to you, Tad," remarked the Captain, oracularly, "and you needn't have no fears. Miss Smith," continued Captain Flagg, with upraised finger to command attention, "is a female that's had a tempestuous v'v'ge in life, as it were, a-losing of every relation she had, which has gone to make her a bit cranky; but she's good-hearted and God-fearin', and once you get into her good books, you're always there."

"They say she's got a han'sum property that her folks left her-some wheres nigh ten thousan' dollars," Mrs. Flagg observed, in a voice indicative of considerable respect for the possessor of such wealth. For in Bixport the person with an unencumbered estate and a thousand dollars was "well-todo"; he who had five thousand was well off; while the owner of ten thousand dollars was regarded in the light of a millionaire.

CHAPTER X.

On the following morning, when and, having opened his eyes to the glad sunlight which streamed in at the east window of his little room, began to pull his drowsy ideas together, he remembered that it was Sunday.

"They'll want me to go to church, and I don't look decent," thought Tad, disconsolately, with a glance in the direction of the chair where he had placed his threadbare clothing the night before.

But what was this? A partly worn suit of serviceable tweed cloth-the very counterpart of that in which Joe Whitney was arrayed when he sprang aboard the "Mary J.," hung over the chair-back. And that was not all. In the chair itself lay all the other essentials of a boy's toilet, neatly folded, even to a coarse white linen collar, a whisp of black neck-ribbon, a pair of but little used lace-up boots, and a

'second-best" straw hat. Scarcely able to believe the evidence of his astonished eyes, Tad slipped out of bed and proceeded to investigate. On the top of the pile was a bit of paper, whereon, in an irregular, boyish scrawl, were written the words: "to Pay for makin' Miss smith think you was deef and playin i was a bare. - J. Whit-

After Tad had gone to bed on the previous evening, Mrs. Flagg slipped over to Deacon Whitney's, and ably seconded by the special pleadings of Joe, succeeded in enlisting the full sym-

parmes of the family in behalf of shabbily-dressed Tad. Joe's wardrobe was sulting in the surprise to Tad which I have mentioned.

ing boy," was Mrs. Flagg's inward comment, as Tad, with hair neatly combed and face and hands scrubbed till they fairly shone, came shyly downstairs dressed in his new suit. Polly smiled upon him approvingly;

the Captain remarked that he didn't know about taking such a dandifiedlooking chap to church along of such plain-dressed folks as the Flagg family; and Mrs. Flagg gave him a motherly "That's so much like Joe," laughed

Polly, as the display of the paper which

Tad had found with his little gift

necessitated an explanation of Joe's

previous performances. "Always remember, Tad," selled the Captain, with a grave shake of the head, as they sat down to the table together, "what Solomon says about a wise son makin' a glad father -and-and he that is not warned thereby is not wise," concluded Captain Flagg, who was sometimes a little hazy in the correctness of his quotations.

After breakfast, the Captain read a chapter from the New Testament aloud.



WELL, HE IS WHAT I CALL A NICE

making comments upon the text, for the edification of Tad and Polly, who listened with respectful attention. And then, after awhile, at the summons of the rather unmusical church-bell, the whole family decorously made their way to the meeting-house, close by.

The Bixporters were, generally speaking, a church-going people; and, on the pleasant April morning of which I speak, the church was well filled.

To Tad's secret joy, Deacon Whitney's pew was next Captain Flagg's, and soon he had the extreme satisfaction of seeing Joe filing in ahead of his sister, followed by Mrs. Whitney and the deacon. Joe sat at the extreme end, and thus the two boys were divided only by the slight partition between Joe greeted Tad with a wink, and

clasping his hands together, rolled his eyes upward, as though in rapturous astonishment at Tad's festive appear-

"I think you're just as good as you can be, and I wish I had something to give you!" whispered Tad, warmly.

"Poh, that's all right," returned Joe hrugging his shoulders carelessly; and a whispered conversation ensued, which was only checked by the entrance of the minister; whereat Joe, duly admonished by a poke of his sister's fan, and a glance of mild rebuke from the deacon, subsided into a temporary attention, with his hands being plunged deeply into his pockets and his eyes fixed steadfastly upon good Mr. Allen. But, I am sorry to say, Joe's thoughts were by no means in keeping with the place. He was cherishing, and even planning, a dire revenge on unconscious Samantha Nason-who sat directly in front of him, in Miss Smith's pew-for what he called her "tattling" of the previous day.

The service proceeded in the good old-fashioned way peculiar to country churches. All denominations worshipped under the same roof, and Mr. Allen's words were but a plain and simple talk about the lessons taught by One who once walked upon earth, and spake as never man spake. There was very much in it that Tad perfectly understood, and, as he listened, a dim desire to fashion his young life after the teachings of the great Master began to take form in his mind. True, it was only embodied in the simple thought, "I'll try to be a better boy," yet from such beginnings oftentimes comes the real success of a true Christian life. And when the sermon closed Tad felt that he should never be tired of listening to a minister who made things as plain as did Mr. Allen.

Now, it was Samantha Nason's invariable habit to sit through the singing, while the others rose. "I work hard all the week, and I'm going to make Sunday my day of rest," said Samantha once, a little defiantly, "an' I guess I can worship the Lord as well settin' down as standin' up."

As the closing hymn was being sung, Tad noticed that Joe, who all through the service had kept his right hand persistently in his pocket, slowly withdrew it, though without removing his eyes from the pages of the hymn-book, and, seemingly holding something in his grasp, slipped his closed hand gently along on the ledge of the pew before him, till it was in close proximity to the back of Miss Nason's neck. Then he stole a sly glance in the direction of his father and mother, who were too intent upon following the words of the hymn (in which their daughter Nellie's voice uprose as clear and sweet as the notes of a woodland bird) to notice the movements of their son. Slowly Joe's fingers unclosed, and after a moment his hand stole back to a place beside its fellow.

"Now what is he up to!" thought Tad, warned by the shadowy grin on Joe's features. And, following the direction of his friend's eyes, Tad's unspoken question was answered. Clumsily clambering over the back of the prim ruffle about Miss Nason's neck was a brown wood-beetle, as big as the end of Tad's little finger. But before he could decide what to do Miss

Nason bounced to her feet with a stifled exclamation, and clutched frantically overhauled, and a selection made, re- at her back hair. Unfortunately she caught hold of the innocent beetle itself, and, giving vent to a shrill scream that made the rafters of the house ring, she threw it violently from her, to the great consternation of every one in the house, many of whom imagined Miss Nason had discovered a mouse in the pew.

Mr. Allen pronounced the benediction and dismissed his congregation. And naughty Joe Whitney, holding his cap before his face, choked and gasped, in the agonies of suppressed laughter, all the way to the door.

CHAPTER XI.

The promise of April had given place to the fulfillments of June, filling the air with summer sunshine and beauty. Tad, under the supervision of Miss Smith, whose angular features were shaded by an immense gardenhat, was weeding the pansy-bed in the front yard. Miss Smith, who was a great flower-lover, made somewhat of a specialty of cultivating sweet-peas and pansies, which she gave away in their season with a liberal hand.

You would hardly have recognized Tad in the brown-faced boy, in blue overalls, bending lovingly over the quaint, upturned flower-faces that peered into his own. He had taken to his new vocation with surprising readiness, and Miss Smith secretly congratulated herself on having at last found a boy after her own heart, though she seldom allowed her satisfaction to show itself in the form of words. "Here comes that Forrest chap

again," muttered Miss Smith, discontentedly, as she glanced toward an elaborately-dressed young man who was sauntering along the elm-shaded street; "I wish he'd kept away about his own business, and not come idling round, taking your attention off'n your

For Mr. Paul Forrest was one of John Doty's city boarders, who had scraped an acquaintance with Tad very soon after coming to Bixport. He seemed to take a singular interest in Tad, which, as he explained to Miss Smith, arose from the boy's strong resemblance to his youngest and only brother, who had died a year previous-"the last one, excepting myself, of a family of seven," he said, with a sad smile. For Mr. Forrest did a great deal of smiling, first and last; and, curious enough, Tad, in some vague way, was reminded by it of the genial Mr. Jones. whom he had met in Boston, before coming to Bixport. Of course, this was simply an absurd fancy on his part. The fraudulent Jones was a smooth-faced young man, with goldtipped teeth-while Mr. Paul Forrest sported a very glossy black mustache, that had a purplish tinge in certain lights, and the whitest and most even teeth that were ever seen outside a dentist's establishment: neither was the little blueish scar visible upon Mr. Forest's white forehead, that Tad had noticed upon the intellectual brow of Jones. Yet, all the same, he often unconsciously connected the two in his mind, even while he laughed at his own folly in so doing.

"Miss Smith, good-morning-Tad, my boy, how are you?" exclaimed Mr. Forrest, with his effusive smile, as he lounged idly up the garden-path, and, with a coolness peculiar to himself, sat

lown on the edge of the garde Miss Smith stiffly acknowledged the greeting, and Tad, glancing up shyly, said he was pretty well. He was a little flattered by Mr. Forrest's evident interest in himself-though he was not quite sure that he liked it, after all. He had nothing in common with the citybred gentleman, and was rather puzzled to know what Mr. Forrest could have in common with himself. "Come into the house after you get

through weeding, Tad; I want you,' said Miss Smith, stalking past the unabashed Mr. Forrest, who sat quite at his ease, with the ivory head of his cane between his lips.

"Yes'm," was the meek reply, and Tad sciently continued his work, wishing that Mr. Forrest would go, for he was very well aware that Miss Smith did not at all approve of the gentleman's frequent visitations. In a small village like Bixport, where

every body's business is public property, the story of Tad and his travelingsachel was generally known, as was also the fact that no attention had ever been paid to Captain Flagg's advertisement. So it was not strange that Mr. Forrest should be in possession of the same knowledge. He had referred to the matter casually in conversation with Tad, declaring that it was a mighty interesting incident in real life-come,

"So you never opened the little alligator-skin sachel, to see what was in it-eh, Tad?" suddenly asked Mr. Forrest, ofter a short pause. "Why, no, sir! I haven't a key-

and, if I had, I don't think it would be

just the thing, either," replied Tad, a little surprised at the unexpected ques-"Oh, I don't know," remarked Mr. Forrest, coolly; "there might be something in it that would give you a clew

to the real owner." "That's true," murmured Tad, who had never thought of this before.

"I think it's your duty to try and open it," continued Mr. Forrest, seeing the impression he had made.

"But I couldn't without breaking the

lock, and I should not like to do that," Tad answered, with a perplexed look. "I suppose you keep it in your possession? inquired Mr. Forrest, carelessly; and Tad nodded. "Then, why not bring the bag over to my room this evening-I dare say some of my keys will unlock it," suggested the gentle-

man, blandly. "I'll think about it, sir," replied Tad, cautiously, for he was not quite sure that it would be just the right thing to do; and, moreover, he wanted to ask the advise of Miss Smith, in whose good judgment Tad had the firmest confidence, before taking any such decisive

If there had been any thing of much value in it," Mr. Forrest observed, watching Tad closely, "the owner

would have been likely to have advertised in the city papers."

"Yes," returned Tad, "but then we shouldn't be any the wiser for that, down here in Bixport, for about the only city papers that come here are the Congregationalist and the New England Farmer."

"By George!" said Mr. Forrest, with a gay laugh, "my curiosity is considerably excited by that mysterious sachel. Look here, Tad!" he continued, with an extravagant display of teeth, "I'm one of the queerest fellows you ever saw, and I'll tell you what I'll do. I'll give you a new clean ten-dollar bill for the bag without seeing it-unknown contents and all; what do you say?"

"Couldn't think of it, sir!" Tad replied, quietly. "Fifteen? Well," he continued, gayly, as Tad shook his head resolutely,

"what will you take? Twenty? Twentyfive?" "Why, it isn't mine to sell, sir," was the same grave reply, and Mr. Forres muttered something under his mustache in reference to "an obstinate young fool," which Tad did not quite

Further conversation on the subject was prevented by the sudden appearance of Polly Flagg, accompanied by Joe Whitney, on her way to school. Polly, who was a special favorite with Miss Smith, had permission to pick all the flowers she wanted. So, with a smile and nod to Tad, she began culling a little bouquet of purple pansies for Miss Burbank, her teacher; while Joe, with one hand in his pocket, calmly munched a huge winter Baldwin, which he held in the other.

"Have a bite, Mr. Forrest," asked Joe, advancing the unbitten side of the apple, with easy familiarity.

To please the youth Mr. Forrest condescendingly and unthinkingly set his teeth in a portion of the tempting fruit. Joe jerked away his hand, suddenly, for some reason or other, and stood apparently transfixed with astonishment as he did so, for inserted in the apple which he held was left a very nice set of false teeth.



THE TELL-TALE BITE.

With an inarticulate exclamation Mr. Forrest grasped apple and all, and vanished through the gate, leaving a small party of three convulsed with laughter, which was only checked by the appearance of Miss Smith, who condescended to smile grimly when she heard of the unfortunate occurrence.

"False feeth, yes!-and, enough, that mustache of his is false, too," sharply said the lady, who had taken an unaccountable dislike to Mr. Forrest from the very first time she which, taken in connection with the conversation of a few minutes before, made Tad unusually thoughtful for the

rest of the day. "If you take that rid'cule over to John Doty's you're a bigger fool than I think for," was Miss Smith's tart remark, when Tad spoke to her on the subject. "I'm free to confess," she continued, after a little, "that it mightn't be such a bad plan to open ne bag, and see what's in it-that is, f Cap'n Flagg thinks it's the right thing to do," she added, for she had considerable respect for the Captain's judgment. But the Captain was away on a coasting trip; so the matter had to be deferred until his return, rather to the disappointment of Miss Smith, whose secret curiosity as to the contents of the bag had something to do with her suggestion.

So, when Tad again saw Mr. Forrest, ne told him that he guessed he wouldn't do any thing about opening he sachel, for awhile longer, at leastperhaps he might see it advertised in ome of the city papers yet, if he could only get hold of the right one.

Mr. Forrest smiled unpleasantly, and aid, rather sneeringly, that he had kept run of the city papers as constant'y as most people, and, to his certain knowledge, no such advertisement had ever been published, nor would there ever be, as the owner was doubtess dead, or had long since given up the search of his lost property. Of course, Tad would do as he liked-it was nothing to him; and Tad noticed a decided chill in the tone and manner of the usually genial Forrest, as he

And yet, in spite of the gentleman's assertions as to the matter of the advertisement he carried in his inside coatpocket a copy of the Boston Journal, which contained a notice of considerable importance to Tad Thorne, could he but have known it.

CHAPTER XII. It was a lovely Saturday afternoon, and, of course, a half-holiday for Bixport youth. Tad had been very busy all the forenoon, as Mr. and Mrs. Mason, of Boston, had arrived the night before, and taken the spare room. They were very wealthy people, who had boarded with Miss Smith for three successive summers, finding in the quiet of this secluded village an enjoyment that no crowded \$5 to \$25 and upwards daily. Some have made watering-place could give them. Tad had seen very little of them, and only noticed that the lady was rather stout and pleasant-faced, while the gentleman was also stout and rather jolly. The name was curiously familiar, though, and he racked his brain in vain to think where he had

urday afternoon, and, borrowing Mr. The "gilded youth" is frequently found to have a pretty solid brass foundation.

Kenneth's big, flat-bottomed boat, had invited Joe Whitney, Polly Flagg and the dog Bounce to go after liller Bixport pond-a beautiful sheet water, not far from Deacon Whitner

"There's Mr. Mason and his wife ready," said Polly, glancing ashe "they always put up some lunch as start for the pond just as soon as th get fairly settled at Miss Smith's.

"And there are those two Bosto girls that are boarding at Widow Sin son's-with Mr. Forrest," added Jo with a slight chuckle, as he reme bered the bitten apple. "Come ashore and have some lunch

young folks," called Mr. Mason, y was a great favorite in Bixport, cause, as they said, "he nor his w put on city airs-if they were wor half a million dollars." So the boat was headed for the sho and, as it touched the beach, Pol

with both hands full of long-stemn fragrant treasures, jumped ashor followed, more slowly, by Tad and Jo "John, dear, will you look at the lovely lilies!" exclaimed Mrs. Ma and, at the sound of her voice, it came back to Tad-the Pullman car and the night journey to Boston hind Mrs. John G. Mason's chair, sl

tered by Mrs. John G. Mason's cloak

The little party gathered round the

How funny it was, to be sure!

lunch-basket, under the shade of some delightfully tall pines, and beg: discuss a rather substantial lunch. a little distance were the Misses Ral two very nice girls of culture, fr Boston-and, having said this. perhaps unnecessary to add that younger wore eve-glasses, and brought a volume of Ruskin for reading, while her sister, with ar tendencies, was seated under a l white umbrella before an easel, ma a sketch of Bixport pond in oils. Forrest, who represented himself one of the first families of New You was most elaborately dressed in a and becoming boating suit of cr colored flannel; and when he from a very green mossy log on w he had been sitting, the effect of was so striking as to draw an and snort from the observant Joe White "Say, Mr. Forrest," he called, w his mouth full of sandwich, "I wouldn' set down much in them white clo's they're all streaked up behind now; be sides, there's lots of bumble-bee's-nests round here."

Mr. Forrest, who had turned very red, did not receive the suggestion in a kindly spirit.

"Young man," he said, loftily, "allow me to say that your coarse familiarity is very unpleasant-have the goodness to attend to your own affairs." "All right," replied Joe, with a wink of exquisite meaning directed to Polly,

and, after another attack on the eatables, he sat in silent meditation. "Got a pin, Polly?" he asked, in a low tone of voice, as he wiped a lingering crumb or two from his lips with his

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who shook her head at him warningly,

coat-sleeve. "What do you want of it?" suspiciously returned Polly. "Why-I want it!" was the unsatis-

factory reply. "Here's one, Joe," said Mr. Mason, with. I regret to say, a somewhat hu-

morous twinkle in his eye. "Now, John!" expostulated his wife, as Joe, taking it, rose to his feet and strolled off, "what made you?-you know that boy is always up to some kind of mischief." But Mr. Mason, who had stretched

himself at ease on the green sward with his straw hat over his face, seemed suddenly to have fallen into a deep sleep, not unpunctuated by an occasional snore; so Mrs. Mason, leanng back against a tree-trunk, fanned nerself languidly, and chatted with Polly, who was making a lily-wreath for her shade-hat, while Bounce lay lay looking on with lazy interest. Tad hugging his knees, which were drawn nearly up to his chin, sat a little dis tance off, thinking how singular it was that, in a big world, he should again have met the owner of the fur cloak, and wondering what she would say if she knew the part she had played in helping him along on his way to Bix-

(To be continued.)

Cement for Mending Boots, Shoes

and Carriage Tops. A cement which answers well for the above purposes may be made by dissolving pure gutta-percha in chloroform until the solution is about as thick as honey. Take a three ounce phial to the druggist and have two ounces of chloroform put in it. To this add a half ounce of pure gutta-percha, cut in small pieces, and cork tight. Shake occasionally, and when dissolved, if too thin, add a little more gutta-percha, but if too thick, slightly reduce by adding chloroform. When brought to the consistency of honey, prepare the patch to be put on the boot by paring the edges neatly, making them very thin; scrape all dirt and grease from the under surface of the patch and also from the surface of the boot. Apply the cement thoroughly-but not too thick-to both surfaces; heat both so as to soften the cement, and when soft apply the patch, pressing it firmly to the boot a few minutes until the cement is set. Patches put on in this way are generally quite as durable and much more tidy than those sewed on by an expert cobb'er. Old carriage tops can be mended in this manner by the aid of a hot iron to soften the cement.

A Deep Mystery.

Wherever you are located you should write to Hallett & Co., Portland, Maine, and receive free, full information about work that you can do and live at home, making thereby from over \$50 in a day. All is new. Hallett & Co will start you. Capital not needed. Either sex. All ages. No class of working people have ever made money so fast heretofore. Comfortable fortunes await every worker. All this seems a deep mystery to you, dear reader, but send along your address and it will be cleared up and proved. Better not delay; now is the time.

ked it up, ther inde an aba coiled her. The ing arms In the of the w nt grown their so instruct a constal to be relie them abo Jing the

square all dark, vagabor coated ho prese manner, kly work. This study.

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THE DEPREDATING HEN.

sall the things in nature that afflict the sons re is nothing that I know of beats the depre

on see a wild-eyed woman firing brick bat

you can bet a hen has busted up her little nders and she scratches, she cackles and

and forty thousand cowboys couldn't keep he She was set on earth to fret us, to exceriate th

brew a brick and missed her, as she hustled

digging rifle-pits where I'd put my

in good sized rock and hit my hired man sis all bounds and shackles, she giggles

and had language, but now I'm filled ve broke the record through that denre

eason for that I erfume i n't very hard

and crackle, no more she'll summer garden look like sor

cheon time to day a hundred-dol-

An Insect Fight.

Rockwood, Jr., writes as follows in

August 19, 1887; servation quoted by Prof. Morse in ss before the American Association it is so exactly confirmed by a reevation of my own, that it seem e to put it on record.

cost (cleada) in the grasp of a ct, evidently of the wasp family. which I am not sufficiently well posted mology to name. It had brown s, and a large abdomen colored black lark brown with white spots. The forty millimetres. When first seen legling locus; was on its back; the tended above it head to head, and isly plying its sting between the wings of the locust. The locust became quiet, and then the wasp, ing its former position, which it t at any time abandon, grasped the the locust by the middle pair of legs, ng the other four legs for locomo tarted to drag it through the short oward one of the trees. There was itation or uncertainty, but the wasp at once in a straight line for the foot ree. On reaching the tree, the wasp without pause to carry its burden to ak, using its four legs for walking, re, and assisting itself to sustain the of the locust by putting its wings in feet or so, where it became difficult follow its motions. After reachth a height, the wasp flew off in a ht line through the branches, and with it, but the height was so great could not be positive. At any rate, cust did not fall to the ground, alas the wasn's fight started from a in a limb, it is possible that the locust t in the crotch. The whole incident

going up the trunk of the tree. Minor Misery of London.

asp, of what he proposed to do, and

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would do next. The only pauses

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they told me at the railway station last train to the suburb where I ed gone, I determined, mindful of sures of night wandering in Paris, shelter in no hotel, but to see what he streets of the sleeping city might

where any passing cab or yonder en dray might, without blame to , have crushed its life out. It was ild, so light in my hand as I up, that for a moment I wondered indeed it was a living thing. Had d at so early an age to suffer and It seemed so, for it made no cry, an abandoned babe, moreover; for iled up asleep in a doorway, lay its The child had dropped from her arms and had rolled into the ken the Strand, not vacant of all traffic the walking lepers of the street, inrown since a piqued police curtails r so repulsive aggressions. "Our structions bid us leave them alone,' constable to me; "and very glad we be relieved of the trouble of chivyn about." There is that danger in g the rebuke of Talleyrand—that he n you forbid over zeal will sink into

Misery in company is here in Traquare. A curious sight, indeed, lest sight," as I then saw it. It dark, with a couchent mob of home- for several years. agabonds taking their rest on Not all in rags there, much ed misery was here. Such was presently tells me he was a city and who, to judge from his tongue ner, may indeed have once done Work. His pillow is a Daily Tele-This paper bedding affords a cu-Most have such furniture to

a starving and homeless outcast, but one respects the institutions of one's country. Four hundred sleepers, men and women promiscuously side by side, I count in the shadows of the finest hotels in the world. High up on this column stands over all one who spoke once of England and her expectation. That 400 men and women and their children should thus be flung on the pavement-starving, abandoned, in the very heart and centre of luxury of the world—who has failed in his duty? Far off gleams the light high up that tells us that the people of England are even now being cared for. Her majesty's commons are at work, and provision is being made for the commonwealth. It is a sorry beacon seen from a sorry sea.

Back to Covent Garden, where more misery is to be seen. No sleepers here, but sympathy for them, should come around men standing shivering under arches—a mother yonder munching some garbage picked from the refuse of the street. Hunger in the centre of the plethora of London! But one lives by contrast, and society loves the antithesis. "A penny, sir, for a cup of coffee. It's terribly cold." How often do I hear those words as I pass a now open coffee house, filled with prosperous marketment? "Can one get soup anywhere here?" No sir-coffee, cocoa, and ginger beer." Are there no soup kitchens open now?" They don't have none, save in winter." It is true, one is Lungry in winter only; the other nine months one is not, or should not be. In Paris one can always and at any hour buy for a penny a good bowl of oup, nourishing and comforting. Often at the Halles, where chiefly the soup merchants ply their trades, have I thus break fasted. It is infinitely better that coffee, tea or cocoa, and it is a matter of wonder that the minor industries of London do not number soup stalls. In Paris these pay edvery well, and are greatly appreciated by

the customers for whom they cater. As the day dawns I am back in Trafalgar quare, where the silent reveille of a cold yind has waked the sleepers. Some are sitting staring at the world; others are occupied over their sad toilets; a woman then with a needle and thread; a man here with a toothbrush and the water of the fountain it is my ex-city clerk. To what another day are these arising? As I stand on Westminster bridge the thought of that line of all this mighty heart. Lie still, the warmly bedded and the well-fed. As for the others? Well, for them

Still there clings
The old question: Will not God do right?

-Pall Mall Gazette.

A Girl Snake-Catcher. She lives in Malden; she is 17 years old. or thereabouts, and she is an ophiologistthat is to say, her specialty is snakes. Very often, in pleasant summer weather, this young girl, with hands clad in high buck gloves and armed with a bottle of chloroform, lurks about the fens and pools and tickets watching for snakes, a girl fair to look upon, sauntering, one might imagine, with eyes upon the ground, in maiden meditation, fancy free. She is in maiden meditation, indeed, but not fancy free, because her fancy is bound to snakes and she is searching intently for some variety not yet added to her collection of several hundred. Presently she stops; with an eager gleam in her eyes she crouches along a step or two, her glove-clad right hand drawn back as if In this way, with a few brief to clutch some object; she springs forward as if to rest and get better hold, in toward the ground with a swift motion, which it hung for a moment appar- and then stands erect with the body of a snake writhing about her arm in desperate throes. She has it by the neck and proceeds calmly to thrust its head into the neck of her bottle of chloroform.

Not many days ago this young scientist, after a rather desperate contest, captured in out of sight. I think it carried the the fells a black-snake so large and powerful that when it wrapped itself in the mad her cords and muscles so severely that she was lame for a week. It did not prevent her, however, from sallying forth again, and when she happened to perceive, at the marperfect understanding on the part gin of a pool, a big water-snake of a variety which she had not secured for her collection, she lay in wait for it. As the snake pounced upon a frog she pounced upon the snake; but the reptile was in his element, and escaped her. Was she to be baffled in that way? Not at all. She managed to anchor a frog in some way upon a stone at the edge of the pool, at a spot where the bank was overhung with bushes. Then she stealthily laid herself flat upon her face under the bushes at the brink of the water, and there she lay in ambush for a long time. while the snake curiously eyed the frog. At last the snake, with sudden resolution, made bold to seize the frog; but as he did so a gloved hand, swifter than his own sinuous motion, darted from the bank, and he was a prisoner, splashing the water of the pool in his vain effort to escape. The girl has one grief-she has not been able to capture with her own hands a rattlesnake. -Boston Transcript.

Marriage in Annam. Marriage settlements and dowries are not eeognized, on account of the difficulties that might arise in case the marriage is dis solved. According to Annamite custom, the woman should not bear the charges of marriage, because she takes the name of her husband and associates herself with him in order to perpetuate his family, not for the sake of her own. It is just for the husband, in his own personal interest, to furnish all that she and her children may need, according to another custom frequently followed, the suitor whose character is not well known should make several visits to the family of his affianced, so as to submit ghfare single misery has taken himself to a kind of testing, often very severe, which shall permit his value and the amount of his knowledgb to be rated. This stage of the negotiations sometimes lasts

> Marriage is usually contracted by inclination, without money considerations entering him-he won't be 'live in teninto the matter. The family is regarded as girl without fortune, but wisely brought up, she will be easily touched by the care he He hasn't been sick since.—Dakota Bell. will take of her, and be obedient to his au. thority. Then, it is not right to exact a

moreover, abandoned her family name take that of a stranger, so there is no dowry. The parents give their daughter what they please, without the young man being allowed to claim or stipulate for anything. Sometimes they require him to make considerable presents, which will be the sole property of his wife. It must not be supposed that the condition of wives is the same in Annam as in China. The six ceremonies of marriage are, it is true, nearly the same in both countries: but while the Chinese wife has to keep her apartments, the Annamite wife is treated as the equal of her husband. - Science Monthly.

The Cheerful Horse Doctor.

People who think that dumb beasts are abused, and that the average man has no when a horse is sick and see that they are

There was a sick horse in the neighborhood last week, and he commanded the attention of the entire community and a veterinary surgeon with a pale blue eve and a sad downcast expression, as if the sufferings of the equine race were driving him to an untimely grave.

"What ails that air horse," said the first man who arrived on the scene where the barn, "is that he has been worked too hard-he's all run down. That hoss needs st; that hoss wants to be turned out in the pasture 'bout a month, that's what that hoss needs-that's what any hoss needs that acks

Then the man sat down on the edge of a board and began to pick his teeth with a piece of fire weed.

The owner looked perplexed and said ebby the man was right and he reckon-

nim 'round 'fore he dies!" broke in another man, coming up out of breath. "Lift him up an' run him round-he needs exercisebeen standin' in the barn too much-needs to be drove-I knowed what ailed your hoss soon's I seen him!"

The owner scratched his head and 'lowed he didn't know-probably the hoss did need exercise. The man who claimed he needed rest was going to say something, when a short, fat man came up, looked at the horse somes to me which speaks of the lying still very critically, walked around him twice and then said:

"My opinion, sir-or mebby you don't want it, 'mebby you don't keer what ails yer

"Oh, yes, I do," replied the owner apologetically; "I want to know bad."

"The trouble with yer hoss," continued the other solemnly, "is that you have went an' over-fed him-like a fool, too, I should say. If you'll get some blisterin' stuff an' blister ver hoss he'll git well. If you don't he's a dead hoss, that's jes' all there is 'bout

He went over and took a seat on the fence, just as a tall, one-eyed man came The tall man took up a pitchfork, stuck the tines in the ground and leaned on the other end while he looked at the horse. "I expected it," he said at last.

'Seed it comin' onto him for a long time. It's lung trouble-wouldn't wonder if it had been comin' onto him for ten years. How old is ver hoss?" "Six this spring."

The tall man didn't act as if he heard, and continued:-"What you want to do is to get some

med'cine into him mighty quick."

"Hoss med'cine of course-regular hoss med'cine, an' plenty of it. Here, this looks like hoss med'cine," he added as he stepped into the barn and returned with a black tottle half full of some yellow liquid, this'll do the bus'ness."

"But mebby it ain't intended for this

disease," said the owner. "That don't make no difference, the hoss needs med'cine and this 'pears to be all

there is." "But I b'lieve, come to think 'bout it, that's lin'ment an' not med'cine a tall." "Well, s'pos'n' it is-air you goin' to let

yer hoss lay there an' suffer? Here, jes' git hold of his head while I pour this down him." This seemed to have no effect on the horse. The crowd continued to come and go for some time. At last the owner des. patched a boy after a veterinary. When this personage arrived he made a long and careful examination of the horse and then

"Mister, your horse is sick."

The owner looked somewhat relieved at this intelligence. Then he continued:-

"You go down an' git quite a lot of nux vom'ca an' some belladonna, with a dash of strychnine, an' mebby a touch of arsenic, an' give him a dose of it every ten minutes.' Then the doctor went away. He came again in about half an hour, and looked in the barn where the horse was then standing and said:-

" Hoss dead?"

" No." "Ain't? I'lowed that he would be-he is a mighty sick hoss. Keep on givin' him the med'cine-though he's bound to die." Then he went out and sat down by the

side of the barn and looked sorrowfal. In about twenty minutes he again looked in and remarked: " No."

"Ain't that hoss dead yet?"

"Well, great Scott, seems 'sif he wa'n't never goin' to die. Air you givin' him the med'cine reg'lar?" " Yes."

"He's bound to die sooner or later." Then he went out and waited again. was half an hour this time before he appeared at the door. When he saw the horse was alive yet he looked disgusted. Then he examined him again and said:

"That hoss can't hang on much longer." Then he got around behind him and added: -"He's dying now-can't nothin' save

The horse kicked with both feet like a moral union, and not as a business asso- circus trick-mule and landed the physician ciation. Hence it is common to see a out the door. Then he backed out and wealthy family allied with a poor one. It kicked at him again as he tried to get over s considered that, when a man marries a the fence, and it took his owner and two other men to get him back into the barn.

"If Mr. Garrett has really sold his stock i thority. Then, it is not right to exact a the Baltimore & Ohio railroad the transaction dowry from a girl whose education has alis a singular metamorphosis," observed the ready imposed on her parents large sacrificem the conservative press. One is

VARIETIES.

SHE was one of those lofty, approach-me not sort of girls, born with a silver spoon in her mouth, and indignant to this day because it wasn't pure gold. Billy Bliven had just they had chatted a few minutes on the veranda, Billy concluded that he would like to

know her better, so he came at the subject thus wise: "I should greatly-I-I should like very nuch to call on you some evening. Suppose I drop around and we go out and take a little

"Thanks." she said stiffly: "I am no peder

narked, in a quiet way peculiar to himself: 'I'd have asked you to go out riding, only

FIRST Omaha Burgiar-What's the matter.

Bill? You're all bunged up. Second Omaha Burglar-I tried to rob old Blinker's house last night while Blinker was out with the boys, but I had bad luck. F. O. B.-Don't see how anything could a

knew you were no lockey.'

appened to ye there. S. O. B .- Mrs. Blinker wasn't asleep. F. O. B .- What of it? Such a scarey little

woman as that. S. O. B .- You see as I was going in the hall stumbled over something, and Mrs. Blinker thought I was the old man coming home drunk again, and she knocked me down with

Young Sportsmen (to farmer from whom be hired a gun and a dog for a day's shootng)-I've lost the dog. Farmer-The dog came home four hour

ago. What's the matter?

Young Sportsman-Why, I fired eight times at a duck, which proved to be a decoy duck, without hitting it, and then the dog howled and started 'cross country. He's no good, Mr. Hayseed: and that gun kicks like thun

Farmer-I should think it would kick like

Then Farmer Hayseed went around to the back yard, when the dog was gnawing an indigestible bone, and gave him a pat on the head and a couple of French chops.

ORIGIN OF ITS NAME -Little Dot-Can't 1 have some more cake? I's only had fre Omaha Mamma-Three pieces! Gracious

L. D.-But that cake won't hurt me. You said it was angel cake. Angels eat it. don' O. M .- No, dear, it is not called angel cake

ecause angels eat it. L. D.-Then why? O. M.-Because little girls who est to

nuch of it become angels. TROUBLE WITH THE CURRICULUM .- First

Second Omaha Dame-Splendidly, but I am afraid he studies too hard. I got a private note from his room-mate advising me to send for my son, as he was beginning to toss round nights and see snakes and things.

r. O. D.-Dear me.

S. O. D .- Yes, isn't awful! I have written to the faculty to ask them to excuse the poor boy from any further attendance at the lee tures on zoology.-Omaha World.

LITTLE BLANCHE, of Pontiac, who had been on a pleasure trip which had included an excursion on the steamer Greyhound, whose route this summer has been between Detroit and Port Huron, was relating her adventures to a youthful admirer in knickerbockers, who seemed much impressed by her comments on the size of the Greyhound, her swiftness and beauty. Straightening himself to the utmost of his thirty-six inches, he exclaimed: "Tell you what, Blanchie, when I get money enough I'm going te buy that dog!'

REGINALD (passionately)-Nay, ask me no to call again: there is the taint of insanity in your family!

Artemis-Insanity? Reginald (more passionately)-Aye, in sanity! Has not your own grim father a de-

Artemis-A delusion, dear Reginald? Reginald (most passionately)-Aye, a de usion. Did he not the other night mistake

EXCITED Fisherman, to summer hotel man -There isn't a bit of fishing around here. Every brook has a sign warning people off What do you mean by luring anglers here with the promise of fine fishing? Hotel Man-I didn't say anything about

fine fishing. If you will read my advertisement carefully you will see that what I said was, "Fishing unapproachable." APPROPRIATE TRIMMING FOR RUINS .-

"How hideous Miss Blakely looked in that new bonnet." "I thought it was very becoming. At 'eas

the trimming was very appropriate." "I didn't notice the trimming." "The bonnet was trimmed with ivy leaves Ivy is very appropriate. It clings only to old

ruins." "I AM going to make you a handsome Christmas present," said a Wall Street broken to his coachman. "Thank you, sir," replied the coachman, who expected something handsome. "I'll give you all you have stole

from me during the past year." "Thank

you, sir; thank you. I hope all your custom

ers will treat you as liberally. Two fashionably dressed young ladies were walking down the street, one on either side of a young gentleman, extremely swell in attire, and equally meagre in proportions. A street gamin grinned at them, then remarked drily, much to the discomfiture of the youth: 'Ain't much ham in that sand wich."

the driver of a Third Avenue street-car, "do you know that you will never get to Heaven you swear at your horses like that?" "If I didn't swear at them horses," responded the driver, "I'd never get to Harem, and that is the point I am headed for

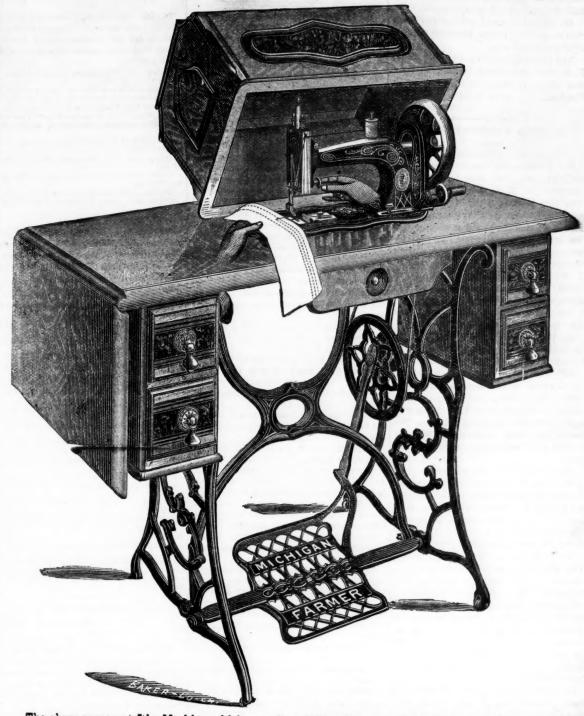
THOUGHT IT WAS AN ULSTER .- De Jones (to ural cousin)-You'll have to wear a dress uit at the party this evening, you know. Rural Cousin-Darn my buttons if I will. I ain't going to come down here to make no female attraction out of myself. If my swallertail ain't good enough I will stay at

FOR REVENUE AND NOT FOR PROTECTION .-My dear, how can you go on in this way? You are too hysterical. It seems to me the ense of protection which I bring to you-" Sir, I didn't marry you for protection."

"Eh? For what, then, pray?" "For revenue. Now are you going to ge

BUY THE BEST AND SAVE MONEY!

been introduced to her at a lawn fete, and was doing his best, in his plain, matter-of-was doing his best, in his plain, matter-of-was doing his best, in his plain, matter-of-was to make himself agreeable. After



The above represents the Machine which we sell at \$17 CASH, AND THROW IN A YEAR'S SUBSCRIP-TION TO THE FARMER. It is very nicely finished, perfect in all respects, and guaranteed to give satisfaction We are contracting for large quantities and furnishing them to our customers at about cost. Agents and dealers profits can be saved and one of the best Machines obtained by ordering of us. A full set of attachments included with each Machine, which is guaranteed to give satisfaction or it may be returned and Money refunded.

Address

GIBBONS BROTHERS,

Some men are born great, but they can't

Strike while the iron is hot, but let some A good character is like a papered room

The real estate agent doesn't earth; he is always trying to sell it. A woman's glory is in her hair, but it is good plan to tie it up when cooking. It is a pity that our neighbors do not know

The most foolish of fools is the man who when asked for his candid opinion gives it. It is worth a thousand pounds a year to have the habit of looking on the bright side

Cremation has no terrors for a man whose nother-in-law has caught him kissing the Why can't the duelists of to day be fair and

quare about it and designate as weapons 'Chins, at two miles?'' Friend—Wilkins, why do you keep all these old almanacs? Wilkins—Waiting for the jokes to ripen for republication.

An Arkansas printer has fallen heir to \$500,000. Among Arkansas printers this is considered a fairly "fat lake."

One reason why the homely girl takes the cholarship prize is because she looks into books more than into mirrors. "There's always room at the top here wouldn't be if everybody who is up

there was as big as he thinks himself. Sam. Jones told the Baltimore people that they were a "silly crowd," and they paid him \$150 a night and proved the statemen

attached to a buoy, and when she's anchoring after a swell.

A bright story in grammar is told of a lift-tle school girl: "Quarrel," she parsed, "is plural." "Why?" "Because—why it takes two to make one."

Logical Boy—Papa, what is luxury? Father—It is something, my son, that we can do without. Logical Bey—What a luxury a Fame is an undertaker that pays but little

attention to the living, but bedizens the dead furnishes out their funerals, and follow She—Are you going to the pionic on Tuesday, George? He—Oh, yes. She (with feeble indifference)—Alone, George? He—No; I shall take an umbrella.

When the dentists of this country discover way to pull teeth without making a man sh he had been born a hen, life will have wice as much brightness.

A man recently astonished his wife by coming home with two black eyes. "What have you been doing?" said she. "Getting a pair of socks," he replied. Uncle John-Why, my girl, you have grown like a cucumber vine! What progress are you making toward matrimony. Clara-Well, Uncle, I'm on my fifth lap.

Little Tommy (who has never been out of the city before)—Oh! oh! oh! Kind Lady— What's the matter, Tommy? Little Tommy— Why, what a big sky they have got here

Amy (speaking of the responsibilities of matrimony)—Would you be afraid to marry on \$5,000 a year, Tom? Tom—Not a bit, if I could only find a girl with that amount of ir-

Suitor—Sir, you are undoubtedly aware of the object of my visit. Father—I believe you desire to make my daughter happy. Do you really mean it? Suitor—Unquestionably. Father—Well, don't marry her, then. It is a singular phase of human natur that when a man gives his wife a dime to buy a box of hairpins or a gum ring for the baby it looks about seven times as big a

A gentleman was accosted in the Alameda by a sturdy beggar. "In Heaven's name give me aid!" he ejaculated. "Aren't you ashamed to beg—a great, strong, healthy fellow like you?" "Senor, I asked you for

Publishers Michigan Farmer, Detroit, Mich. EXCURSION TO THE WEST.

" By the Wabash Route."

For the I. O. O. F. meeting, to be held at Denver, Col. Tickets will be on sale Sept. 12th to 18th, gook to return until Oct. 31st.

For the G. A. R. Encampment, to be held at St. Louis, Mo. Tickets will be on sale Sept. 24th to 27th, inclusive; good to return October For the St. Louis Exposition, tickets will b on sale every Monday and Thursday until

Oct. 20th, good for five days. Rate, \$14. For the St. Louis Fair and Veiled Prophet tickets will be on sale Oct. 1st to 7th, inclu sive; good to return until Oct. 10th. Rate

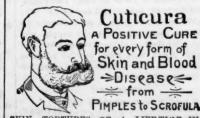
For full information, time tables, maps. etc., apply to Wabash Ticket Office, Detroit Mich. R. G. BUTLER.

> Coml. Agent. A Remarkable Growth.

The many friends of Messrs. Montgomery Ward & Co., formerly at 227 and 229 Wabash Ave., Chichigo, will be glad to know that the rapid growth of their business has forced them to remove from Wabash Avenue to 111, 112, 113 and 114 Michigan Avenue, where they have purchased a magnificent building, the seven floors of which they will occupy exclufeet (about three acres) of floor surface. The new quarters will enable them to handle their large business to the better advantage of their thousands of customers. Fifteen years ago Messrs. Montgomery Ward & Co. occupied bu one room and that only 25x40 feet. The en ormous growth of their business during these firteen years can only be explained by the fact that they sell direct to consumers, supny article. The success of this house proves the old saying that "Honesty is the bes policy," and from this policy they never deviate. The fall catalogue issued by Messrs. Montgomery Ward & Co. ought to be in every

What is the difference between an auctio and sea-sickness? One is a sale of effects, the other the effects of a sail.

NEW ADVERTISEMENTS.



= from = PIMPLES to SCROFULA OKIN TORTURES OF A LIFETIVE INDICATED STATES OF A LIFETIVE INDICATED STATES OF A LIFETIVE INDICATED STATES OF A LIFETIVE INDICATED AS AND A REAL STATES OF A LIFETIVE AS AND A STATES OF A LIFETIVE AS AND A STATES OF A LIFETIVE AS AND A LIFETIVE AS A LIFET

fail.
Sold everywhere. Price, Cuticuma, 50c.; Soar, 25c.; Resolvent, 81. Prepared by the Potter Drug and Chemical Co., Boston, Mass.
Send for "How to Cure Skin Diseases." PIMPLES, blackheads, chapped and oily skin prevented by Cuticura Medicated Soap.

air, when physicians and all known remedie

HUMPHREYS'

For Horses, Cattle, Sheep, Dogs, Hogs, Poultry. 500 PAGE BOOK on Treatment of Animals and Chart Sent Free.

-strains, Lameness, Kacumatis,
Distemper, Nasal Discharges,
-Bots or Grubs, Worms,
-Coughs, Heaves, Pneumonia,
-Colic or Gripes, Bellyache,
-Miscarriage, Hemorrhages,
-Urhary and Kidney Diseases,
-Eruptive Diseases, Mange,
-Diseases of Digestion,
-Cose, with Specifics, Manual

Sent Prepaid on Receipt of Price. Humphreys' Med. Co., 109 Fulton St., N. Y. HUMPHREYS'

Nervous Debility, Vital Weakness,

Intelligent Readers will notice that

Vertigo, Headache, Dyspepsia, Fevers, Costiveness, Bilious Colic, Flatulence, etc.

For these they are not warranted in-fallible, but are as nearly so as it is pos-sible to make a remedy. Price, 25cts. SOLD EVERYWHERE. A Ta session of the Circuit Court for the Country of Nayne, In Chancery, convened and held at the Circuit Court room in the City of Detroit on the 28th day of August, in the year one thousand eight hundred and eighty-seven. Present: Hon. William Jennison, Circuit Judge. Mabel Webb vs. Frank J. Webb. In above cause it appearing by the affidavit of Mabel Webb, complainant, that it can not be ascertained in what State or country said defendant, Frank J. Webb, resides, or can be found and it further appearing by the return by the Sheriff of Wayne Country, that the subpœna Issued In this cause cannot be served upon said defendant be cause his whereabouts cannot be ascertained; upon motion of Howard Wiest, solicitor for complainant it is ordered that said defendant, Frank J. Webb appear in this cause, and answer complainant bill on or before the first day of February, 1888.

WILLIAM JENNISON, Circuit Judge. HOWARD WIEST, Solicitor for Complainant.

At a session of the Circuit Court for the County of Wayne. In Chancery, convened and held at the Circuit Court room in the City of Detroit, on the twenty-fifth from the City of Detroit, on the twenty-fifth and and eighty-seven. Present: Hon. William Jennison, Circuit Judge. Ernest H. Martindale vs. Susan Martindale. In above cause it appearing by the affidavit of Ernest H. Martindale complainant, that said Susan Martindale has departed from her last known place of residence, and that it cannot be ascertained in what State or country said defendant resides or can be found, and it further appearing the return of the Sheriff of the County of

January, 1888. WILLIAM JAMES J. ATKINSON, Solicitor for Complainant.

HOMEOPATHIC VETERINARY SPECIFICS

cures-Fevers, Congestions, Inflammation A.A.-Spinal Meningitis, Milk Fever. B. B. B. Strains, Lameness, Rheumatis

Stable Case, with Specifics, Manual, Vitch Hazel Oil and Medicator. Price, Single Bottle (over 50 doses),
Sold by Druggists; or

except that he failed to sow the salt. E. Leland had destroyed cut worms entirely on twenty acres of corn ground by the use of salt.

Mr. Nordman-Care should be taken to select seed wheat from the best part of the field, where the heads are the largest.

Mr. Brockway sowed salt last fall on his wheat, and this season harvested from 16 to 25 bushels per acre.

The Club will hold its annual fair at W. R. Boyden's the second Saturday in October. Cyrus G. Stark will read a paper at

JAS. E. BUTLER, Secretary pro tem.

OXFORD FARMERS' CLUB.

OXFORD, Sept. 14, 1887. Is it too late to tell that the Oxford Farmers' Club held their June meeting at the residence of M. E. Delano, of Thomas their July meeting at Mr. James Adams, of Oakwood, and their August meeting at Mr. H. W. Hollister's; and at each meeting the membership and interest increased beyond expectations. The club had a picnic the 27th of August, at Stony Lake, at which J. W. Donovan, of Detroit, Rev. C. C. Miller, Hon. J. M. Norton, and Joshua Van Husen spoke.

The speaking was all good and gave great satisfaction to the great number present.

Mr. Donovan's was the principal speech of the day. He spoke for about an hour, his subject being "The Farmers of the Future." He began with a sketch of the finest farms he had seen in New York. Pennsylvania, Ohio, Illinois, Indiana, Iowa. Kansas and Michigan, and what different farmers were raising, giving a graphic picture of very many beautiful homes in the country that would rival the finest in any

The speaker gave Michigan the first place in the Union in all natural advantages, the first also in beautiful homes. He discussed the question of "going west to buy more land" for the children, warned the farmers against giving notes on fancy patents; believed that farming pays to men who advance with the times, and keep posted. That gardens pay, and early corn, early cabbages, early fruit, grapes and berries, early onions and early poultry, are all profitable, but the profits of wheat are lessened by competition. The steam plows in Dakota, the thousands of grain raisers of the great northwest, have turned the attention of farmers to the methods of France and England and California, where small farms pay better than large ones.

He urged the farmers to cultivate clubs, read the leading papers, keep posted, and concluded with these words: "The country must furnish in the future as in the past the brains of men in the city-men like Greeley and Beecher, Clay and Webster, Grant and Lincoln, who had in their nature the rude strong elements that spring from the soil men who love their neighbors, and see in their success new elements of national prosperity; sharp, keen, courageous men, who practice thrift and enrich their State by inventive genius developed in the hardships giornal a northern climate. The farmers of the

future will have homes and yards that will rival in beauty the city, with lawns and fountains and flowers and shade trees near their dwellings; with gravel roads to market, pure water for their blooded cattle, barns planed and painted, and the finest of outbuildings. Their houses will be so attractive that their children will point to then with pride while passing by in carriages with a city associate, and say, "Yonder is our home." The farmer of the future will have parlors for every day in the year, including Sundays, and will read his State and county paper, and know what the world is doing. He will love his neighbor for the improvements he makes and will not feel jealous of his new buildings. He will have clubs and picnics in abundance. He will go to his rest after labor like a ship in full sail, and not like one broken by storms and discarded from having consumed all its rigging and its spars for fuel in a voyage over an ever troubled ocean. His life is what he makes it, what he thinks it, and what he wills it."

Mr. Donovan closed with an original poem entitled "Land Poor," which was pork is higher; lard unchanged; bacon highhighly applauded. The belief in the value of these organizations to farmers seems to

Peterinary Pepartment

Conducted by Prof. Robert Jennings, Veterinary Surgeon. Professional advice through the columns of the Michigan Farmer to all regular subscribers Pres. The full name and address will be necessary that we may identify them as subscribers. The symptoms should be accurately described to ensure correct treatment. No questions answered professionally by mail unless accompanied by a fee of one dollar. Private address, No. 201 First St., Detroit, Mich.

Amaurosis or Paralysis of the Optic Nerve, the Result of Injury by a Fall.

BROUARD, Sept. 7. Veterinary Editor of the Michigan Farmer. I have a sucking colt injured in the fol-lowing manner: While being broken to halter it reared and fell over backward, striking the back of the head and neck on the hard road. It lay for a moment insensible but recovered in a short time and got up. Bled a little at the nose, but did not appear to be hurt much. Upon leading it to the farm we found it to be stone blind. I remarked a peculiar glassy appearance of the eye as the colt was led up, but beyond this could see no other symptoms. This happened two days ago. At this stage his eyes are discharging slightly, and appear di-lated and the lids drawn back. He is still absolutely blind. It is a mystery to me how a blow at the back of the head could injure the vision. I supposed the optic nerve, and the portion of the brain upon which sight was dependent, to have no connection with the spinal column. Can anything be done for him, and what are his chances for recov

P. S. Since writing the above I have examined the colt's eyes and think they have an unnatural appearance; the iris appear dilated, is about as big as a two cent piece and looks cloudy or milky.

L. W.

Answer.-Amaurosis or paralysis of the optic nerve, is the cause of dilation of the pupil of the eye, accompanied with blindness. Paralysis of the nerve may arise from accidental causes, such as a blow upon the head, causing alteration of structure in or account the optic nerve. In this case the full \$3.90. around the optic nerve. In this case the fall \$3 00.

a'e or exciting cause of the trouble. would advise you to consult a competent veterinary surgeon with reference to treatment in such cases, which, at best, is very uncertain.

Commercial.

DETROIT WHOLESALE MARKET.

FLOUR.-Market quiet and unchanged. Values are somewhat weaker on account of the depression in wheat. Quotations on car lots are as follows:

WHEAT .- The week closed with a dull and depressed feeling in the market, and values showing weakness. At the lowest points reached there were more sellers than buyers. Futures were very weak, the whole list showing a decline. May delivery sold down to 823/4c. Closing prices on Saturday were as fol lows: Spot-No 1 white, 763/4c; No. 2 red, 73c; No. 3 red, 71%c. Futures-No. 2 red, September, 73c; October, 731/4c; November, 751/4c; December, 76c. There is nothing doing in futures in No. 1 white.

CORN .- Market steady and a shade higher. No. 2 spot is quoted at 44%, and No. 3 at

OATS .- Quiet and steady. The latest sales reported were on the basis of 30c for No. 2 white, and 27c for No. 3.

BARLEY .- Firm at \$1 25@1 30 for No. 2. \$1 50 for No. 1 and No. 3 at \$1 15@1 20 per cental.

RYE.—Quoted at 44@45c \$ bu., with a quie market.

FEED.-By the car-load \$13 25 % ton is quo ted for bran. Middlings quoted at \$13@16 \$

BUTTER .- Market steady and unchanged, with choice dairy scarce and wanted. Quotations are 19@20c for extra selections of dairy, and 16@18c for good table grades. Creamery s quiet and steady at 24@25c # b.

CHERSE.-Market quiet and quotations steady at 120121/2 for Michigan full creams; Ohio, 101/2@11c; New York, 121/2@13c. EGGS.—Fresh command 16@161/20 \$ doz

Receipts have been light, and the market is FOREIGN FRUITS.—Lemons, Messinas, P box, \$4 00@4 50; oranges, Messinas, 🦞 bex, \$4@4 50; cocoanuts, \$ 100, \$5 00@5 50; ananas, yellow, \$ bunch, \$2@3; red, \$1 50@

\$2. Figs. 11@12c for layers, 12@14c for fancy. BEESWAX .- Steady at 25@30c W B., as to HONEY .- Market quiet and steady at 16@ 17c for comb and 121/013c for extracted.

BRANS .- Market quiet but firm. Quoted a \$2 50@2 6) \$\text{\$\text{\$\text{bu.}}\$ for city picked.} DRIED APPLES .- Market quiet at 4@5c for

on, and 11@12c for evaporated. SALT .- Michigan, 86c per bbl. in car lots. eastern, 85c; dairy, \$2 per bbl.; Ashton

quarter sacks, 69c. POTATOES .- Demand not active, but th narket is higher at \$3 00 P bbl.

ONIONS .- Inactive at \$2 75@3 00 9 bbl. POULTRY .- Market quiet, and prices gen erally lower. Quoted as follows: Live, D., roosters, 4c; hens, 8c; turkeys, 9@10c; ducks, 6c; spring chicks, 8c; P pair, pigeons 25c. Receipts are large.

HIDES.—Green city, 6@6%c \$ b., country, 6%@7c; cured, 8c; green calf, 7@7%c; salted do, 8c; sheep-skins, 20@50c each; bulls, stag and grubby hides 1/4 off.

APPLES.—Quoted at \$1 25@\$1 50 per bbl. with a dull market. CRANBERRIES .- A few Michigan offered at \$2 P bu. The market is lifeless. CRAB APPLES,-In fair demand at 70@756

B bu., outside for the Siberian stock filled at 202%c for Concords and 405c for Delawares and Catawbas.

PEARS.-The market in good condition Dealers quote at \$2 50@4 00 \$ bbl., outside for choicest varieties.

PEACHES.-Receipts heavier at the end of the week and prices easier. Crawfords \$1 50 @1 75 % bu. for good to choice and \$2 00 for fancy; Smocks, \$1@1 40; white, 80c@\$1 25. SWEET POTATOES .- Firm at \$3 50@3 7 for Jerseys, and \$2 75@300 for Baltimores. TOMATOES.—Steady at 50@60c W bu.

WATERMELONS .- Steady at \$12@15 per 00, the latter for selected lots. PLUMS .- Good to choice quiet and stead at \$2 50@3 00 9 bu. Fancy varieties firm and

in demand at \$3 50@4 00. CABBAGES.—In good inquiry at \$5@5 50 \$

PROVISIONS.—Market quiet. Family mess

er. Mess beef has declined. Quotations here are as follows:

New mess		\$16 00 I	2016	25
Pamily		16 75	@17	00
hort clear			@17	25
ard in tierces, 19 1b			0	7
ard in kegs, 🗑 🕽				734
Iams, # D				12%
houlders, W D				8
choice bacon, W D				1214
extra mess beef, per bbl			@ 7	50
'allow, # 6		8 (0	
HAY The following	r is a	record	of	the

sales at the Michigan Avenue scales for the past week, with prices per ton:

Monday—13 loads: Six at \$13; two at \$13 50, \$12 and \$11; one at \$14.
Tuesday—18 loads: Seven at \$13; five at \$12; two at \$11; one at \$13 50, \$12 50, \$11 50 Wednesday-21 loads: Six at \$12; four at \$13; three at \$14 and \$13 50; one at \$15, \$12 50

\$11 and \$10 50. Thursday—24 loads: Six at \$12; five at \$13; three at \$13 50, \$12 50 and \$11; two at \$14; ne at \$11 50 and \$10 50. one at \$11 50 and \$10 50.

Friday—36 loads: Six at \$13 and \$12; five at \$14, \$12 50 and \$11; three at \$13 50 and \$10; one at \$15 50, \$11 50 and \$10 50.

Saturday—14 loads: Six at \$13; three at \$12; two at \$14 and \$18 50; one at \$12 50.

LIVE STOCK MARKETS.

At the Michigan Central Yards. Saturday, Sept. 17, 1887.

The receipts of cattle at these yards num pered 638 head, against 702 last week. The market opened up with a good demand for light. For the best of the offerings about last week's prices were paid, but for common grades prices were a shade lower. The following were the closing

QUOTATIONS: to 1,450 lbs.

Choice steers, fine, fat and well formed, 1,100 to 1,300 lbs.

Good steers, well fatted, weighing 950 to 1,100 lbs.

Good mixed butchers' stock—Fat cows, helfers and light steers.

Coarse mixed butchers' stock—Light thin cows, helfers, stags and bulls 2 2502 00 5042 75 Extra graded steers, weighing 1,300

Tabor sold Marx a mixed lot of 11 head of good butchers' stock av 920 lbs at \$3 20. Hope sold Kraft 4 good butchers' steers av 952/lbs at \$3 50. Dennis sold John Robinson a mixed lot of

23 head of fair butchers' stock av 777 lbs at at \$2 75, and 3 buils av 933 lbs at \$2. Plotts sold Lapham 15 stockers av 872 lbs at \$3.

McMullen sold McIntire a mixed lot of 11 head of fair butchers' stock av 700 lbs SHEEP.

The offerings of sheep numbered 1,691 head. against 1,887 last week. Sheep were in good emand and the receipts changed hands at prices 10@15 cents higher than those of on week ago.

Spicer sold Fitzpatrick 73, part lambs, av 75 lbs at \$3 60. 5 lbs at \$3 60.

C Roe sold Webb Bros 88 av 75 lbs at \$2 90.
Balderson sold Young 46 av 73 lbs at \$3 25.
Hauser sold Fitzpatrick 36 av 83 lbs at \$3.

C Roe sold John Robinson 168 av 77 lbs at \$3.

Capwell sold Burt Spencer 89 av 82 lbs at sev sold Fitzpatrick 65, part lambs, a 60 lbs at \$3 35.

Jedele sold John Robinson 103 av 59 lbs at

Glover sold Brownell 176, part lambs, av 77 bs at \$3 75. Newman sold Monahan 40 av 72 lbs at \$3 30. Spicer sold John Robinson 21 av 59 lbs at

The offerings of hogs numbered 3,003 nead, against 2,381 last week. The market opened up slow at about last week's prices, but later declined 15@20 cents and close

Brown & Spencer sold Giddings 100 av 227 bs at \$5 25, and 129 av 189 bs at \$4 95. Stabler & O'Hara sold Devine 105 av 207 bs

and 93 av 184 lbs at \$4 90. Thayer sold Webb Bros 63 av 209 lbs a Watson sold Plotts 58 av 168 lbs at \$4 90.

Haywood sold Allen 78 av 190 lbs at \$4 75.

C Roe sold J B Rowe 62 av 180 lbs at \$4 80.

Balderson sold Webb Bros 60 av 198 lbs at

\$4 80.

Sutton sold Sullivan & F 104 av 175 lbs at \$4 80. C Roe sold Webb Bros 109 av 192 lbs at \$4 75. Clark sold Webb Bros 98 av 158 lbs at \$4 80. Plotts sold Sullivan & F 87 av 174 lbs at

> King's Yards. Saturday, Sept. 17, 1887. CATTLE.

The offerings of cattle at these yards nun bered 659 head, a good portion of which were westerns. For the better class of Michigan cattle there was a good demand at about last week's prices, while common grades were weak and a shade lower. Glenn sold Murphy a mixed lot of 10 head of fair butchers' stock av 714 lbs at \$2 70,

and 5 fair cows to Kammon av 1.108 lbs at Beach sold Kamman a mixed lot of 6 head of fair butchers' stock av 711 lbs at \$2 75, and 2 bulls av 700 lbs at \$2.
Stead sold Genther 4 choice butchers' steers av 1,040 lbs at \$4 371/6

head of coarse butchers' stock av 666 lbs at \$2 25. Sprague sold Reagan a mixed lot of 7 head of thin butchers' stock av 657 lbs at \$2 50 and 2 bulls av 955 lbs at \$2. Guthrie sold Hunter 4 good butchers'

steers av 852 lbs at \$3 60.

J B Rowe sold J Wreford 8 good heifers av 818 lbs at \$3 30, and 2 bulls to John Robinson Stead sold John Robinson a mixed lot of 6 head of good butchers' stock av 1,091 lbs at

Glenn sold Brooka 9 stockers av 733 lbs at \$3 50.

Beardslee sold Voigt 4 fair heifers av 767 on Thursday, but improved somewhat on

Wreford & Beck sold McGee 26 mixed westerns av 770 lbs at \$2 70, and 29 to Flieschnan av 681 lbs at \$2 75.

Purdy sold Schroder 6 fair heifers av 841 lbs Shepard sold Williams a mixed lot of 18 head of thin butchers' stock av 800 lbs at \$2.60.

Niles sold Marshick 5 good heifers av 856 Fair to choice cows. Wreford & Beck sold Phillips & Wreford 27

Purdy sold Kolb a mixed lot of 8 head of fair butchers' stock av 782 lbs at \$3.

Morris sold McGee a mixed lot of 7 head of thin butchers' stock av 851 lbs at \$2 60.
Wietzel sold Meyers 5 fair heifers av 792 lbs at \$3 25.

McFadden sold Stucker a mixed lot of 7 Wreford & Beck sold McGee 23 mixed west

Guthrie sold Harlan a mixed lot of 14 head of fair butchers' stock av 604 lbs at \$290.
Purdy sold Stonehouse a mixed lot of 8 head of fair butchers' stock av 780 lbs at McMullen sold Stonehouse a mixed lot of 8 ead of fair butchers' stock av 855 lbs

The offerings of sheep numbered 2,476 head-The demand for sheep was active and prices advancee 10@15 cents over the rates of las

Payne sold Loosemore 98 av 74 lbs at \$2 75 Johnson sold Fitzpatrick 34 av 77 lbs a

Beach sold Fitzpatrick 45 av 64 lbs at \$3 25. Butler sold Loosemore 102 lambs av 65 lbs t \$3 75.
Beach sold Morey 48 av 78 lbs at \$3 50.
Walls sold Loosemore 120, part lambs, av 75 lbs at \$3 50. Pierson sold Loosemore 105 av 72 lbs at

Glenn sold Loosemore 55 av 69 lbs at \$2 80 McMullen sold Andrews 85 av 80 lbs a

Shepard sold stacey 105 av 77 lbs at \$3 30. Van Tuyl sold G Wreford

3 25. Ormiston sold Stead 85 av 67 lbs at \$2 80. Bell sold Wreford & Beck 75 lambs av 58 lbs t \$4 50. Morris sold sold Heller 31 av 75 lbs st \$3. Wietzel sold Heller 29 av 63 lbs at \$3.

The offerings of hogs numbered 3,209 head Hogs were in good demand and sellers closed out their stock at about the same range of rices as were paid at these yards last week. Irwin sold Rauss 32 av 202 lbs at \$5 15. Standlick sold R S Webb 62 av 164 lbs

Johnson sold Huyser 49 av 205 lbs at \$5. Culver sold R S Webb 55 av 175 lbs at \$5. Culver sold R S Webb 55 av 175 lbs at \$5. Walls sold Rauss 58 av 181 lbs at \$5. Adams sold Rauss 121 av 183 lbs at \$5. Brant sold R S Webb 47 av 176 lbs at \$5. Brant sold R S Webb 47 av 176 lbs at \$4. 90 McHugh sold Rauss 60 av 170 lbs at \$5. Parks sold Rauss 70 av 185 lbs at \$5. Wilcox sold Rauss 95 av 162 lbs at \$5. Merritt sold Sullivan & F 101 av 196 lbs at \$5. Bobb sold Sullivan & F 102 av 196 lbs at \$5. Robb sold Sullivan & F 102 av 206 lbs at \$5. Nott sold R S Webb 102 av 184 lbs at \$5. McLaughlin sold Sullivan & F 88 av 193 lbs Stottie sold Sullivan & F 60 av 200 lbs a Gienn sold Brooka 46 av 149 lbs at \$4 90. Pierson sold Sullivan & F 67 av 164 lbs at

\$4 90. Butler sold Sullivan & F 114 av 169 lbs as 4 80. J B Rowe sold Brooka 72 av 224 lbs

4 su.
Purdy sold Spencer 85 av 146 lbs at \$4 60.
Culver sold Sullivan & F 92 av 186 lbs at \$5.
Holmes sold Church 117 av 191 lbs at \$4 90.
Van Tuylsold Sullivan & F 90 av 170 lbs

Beardslee sold Rauss 120 av 182 lbs at \$5. Jacobs sold Church 60 av 104 lbs at \$4 80.

the previous week. The market opened

Huttalo. CATTLE.—Receipts, 13,432 against 12,767

up on Monday with 265 car loads on sale. The emand was fairly active and prices were about 10 cents higher than on the previous Monday. The best 1,400 to 1,500 lbs steers old at \$4 40@4 80; good 1,300 to 1,400 lbs do at \$4 10@4 40; good 1,200 to 1,300 lbs do, \$8 75 @4 15; good 1,100 to 1,200 lbs do, \$3 50@4. and good 1,000 to 1,100 lb do, \$3 25@3 75; mixed butchers' and cows and heifers weak, selling at \$3@3 25; stockers and feeders were also weak, but at the prices there was an improved demand. Up to Friday the receipt were light and the feeling weak. On Saturday there were 3.672 head received. For com mon to fair lots the market was dull, while good to choice shipping grades were active and a shade higher. The following were the

Extra Beeves-Graded steers, weigh-4 80 245 1,400 lbs...

Good beeves—Well-fattened steers weighing 1,200 to 1,350...

Medium Grades—Steers in fine flesh, weighing 1,400 to 1,200 lbs.

Light Butchers—Steers averaging 850 to 1,100 lbs, of fair to good quality. quality.

quality.

sutchers' Stock—Inferior to com-3 25703 7 mon steers and helfers, for city slaughter, weighing 900 to 1,000 lbs. 2 2573 2 Michigan stock cattle, common to Michigan feeders, fair to choice..... 3 00@3 2

at bulls, fair to extra..... SHEEP .- Receipts 39,200, against 43,600 the previous week. The offerings of sheep on Monday consisted of 48 car loads. The de-mand was only fair, and the market barely steady at Saturday's prices. Common to fair neep sold at \$3 50@4, and good to choice at \$4 15@4 50. Lumbs were firm at \$5 50@6 for fair to good. The market was strong on Tuesday and advanced 10 cents on Wednes-day. On Thursday and Friday the offerings were light and the market steady. On Saturday there were 5,000 sheep on sale. The market was active, and full former prices were paid for the receipts. Common to fair sold at \$3 50@4; good to choice, \$4 25@4 60, and fair to good lambs at \$5 50@6.

Hogs.-Receipts 58,642 against 61,051 the revious week. There wers 106 car loads of hogs on sale Monday. The market ruled active at full Saturday's prices. Good techoice corn-fed Yorkers sold at \$5 5025 65. selected medium weights, \$5 65@5 70; fair to best Michigan bogs, \$5 30@5 45; pigs, \$4 50@ 475. The market was weak on Tuesday, de-clined 15 cents on Wednesday, and about 16 cents more during Thursday and Friday, closing weak. On Saturday the receips of hogs numbered 9,360. The market ruled active but not quotably higher. Good to choice corn-fed Yorkers sold at \$5 25@5 45; selected medium weights, \$5 40@5 50; bes Michigan hogs, \$5 10@5 25.

CATTLE.-Receipts 46,845 against 48,510 last week. Shipments 15,035. The cattle market opened up on Monday with 7,620 head on sale. The larger portion of the receipts were "rangers" and good to choice natives were very scarce. The general market ruled 10 cents higher than on Saturday, and all were closed out early. Extra steers were quoted at \$5 05@5 25; fair to choice, \$4 45@5; fair to good butchers' steers of 900 to 1.150 lbs. \$3 40@4 25, and inferior to good cows at \$1 25@2 40. Prices declined 10 cents on Tuesday, and from 10 to 15 cents Friday, closing steady. On Saturday the market ruled slow and unchanged, closing a

the following Fair to choice shipping, 1,200 to 1,400 lbs..... Common to good shipping, 1,050 to 3 65@4 5

Hogs.-Receipts 85,068, against 67,772 last week. Shipments 24,875. The offerings of hogs on Monday numbered 13,651. The de-mand was slow at the opening, and prices a shade lower than on Satur ay, but later the market improved and closed at strong Saturday's rates. Poor to prime light sold at \$5 10 (55 40; inferior mixed to to choice heavy, \$505 60; skips and culls, \$3 50(34 90. The market declined 10@15 cents on Tuesday, market declined 100015 cents on Lucsany, ruled steady on Wednesday and declined 10 cents on Thursday. Friday's market was a bad one. It opened 10 cents lower, but at the close it was fully 25 cents off, and a good portion of the receipts were unsold. On Saturday there were 10,000 hogs received. The market ruled fairly active, best at a shade lower prices. Poor to prime light sold at ower prices. Poor to prime light sold at \$4 70@5 10: inferior mixed to choice heavy \$4 70@5 25; skips and culls, \$3@4 50.

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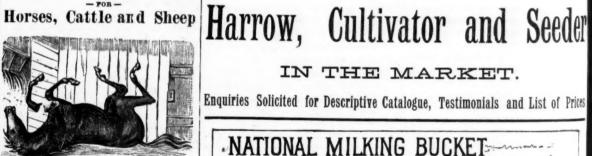
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trees attached to our Power will grind from 10 tol bushels per hour with two horses. For references we direct you to John F. Hagerman, Romeo; Hot A. B. Maynard, Romeo; Eugene Smith, St. Clair Hon. H. H. Hatch, Bay City; Hon. Wm. L. Weo ber, East Saginaw; G. N. Terrill, Lapeer; S. L. Hoxie, South Edmeston, N. Y. We also make a power especially adapted to Grain Elevators and other stationery purposes which will elevate five bushels per minute, fitty five feet high, with one horse and medium clevs thom. For this purpose we refer you to Miller & Ainsworth, Swartz Creek, H. F. Bush, Gaine Station; James Johnson, Cassopolis; John Gard ner, Oxford. Correspondonce solicited. Fo further particulars and illustrated circulars ad tress as above. Mention this paper.

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Northern Wisconsin Society	Oshkosh St. Louis, Mo Toledo, Ohio Toronto, Ont	Sept. 5 to 9 Oct. 3 to 8 Sept. 4 to 10 Sept. 5 to 17	A C Austin Arthur Uhl Chas Reed HJ Hill	M ishaws Oshkosh St. Louis Toledo. Toronto.

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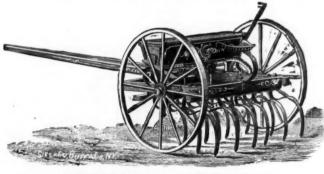
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	Armada Ag'l Society	Armada	Oct. 5 to 7	Geo & Adams	Anna
1	Avon Ag'l Society	Rochester	Oct. 11 to 14	Theo Dehlmen	Parillada,
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1	Brighton Market Fair	Brighten	Oct. 11 to 14	Louis Mover	Bancroft.
1	Central Fair Association	Hubbardston		N M Camphall	Brighton.
1	Chelsea Fair Association	Chelsea	Sept. 29 to Oct. 1	Goo & Mitchell	Hubbardst's
1				I O Booroft	Cheisea.
1	Eaton Rapids Union Society Fearnaught Driving Park Ass'n	Eaton Rapids	Oct. 5 to 7	Orr Shurta	Dowagiac.
	Fearnaught Driving Park Ass'n	Romeo	Oct 4 to 7	C.I. Dhilling	Eat n Rapide
١	Fenton Union Society	Fenton	Oct Ato 7	W Dlookmone	Romeo.
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1	Ionia District Fair Association	Ionia	Sept 97 to 90	E D Smith	Hadley,
	Milford Union Society	Milford	Oct 4 to 7	C F Lovoion	Ionia.
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	Union Ag'l Society Union Ag'l Society	Litchfield	Oct. 11 to 14	I B Agard	Stockbridge.
1	Union Ag'l Society	Plainwell	Sent 97 to 20	W H George	Litchfield
١	Allegan County	Allegan	Oct 4 to 7	G H Lower.	Plainwell.
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	Berrien County	Niles	Sept 97 to 30	E D Elsk	Coldwater.
1	Calhoun County.	Marshall	Oct 4 to 7	J R Cummina	Niles.
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1	Manistee County	Onekama	Sept. 20 to 22	John N Brodie	midiand.
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1	St. Joseph County	Centerville	Sept. 27 to 30	Samuel Cross	Contomit
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1	Washtenaw County	Ann Arbor	Oct. 4 to 7	John R Miner	A ran Arbon

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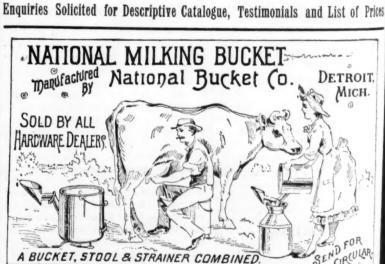
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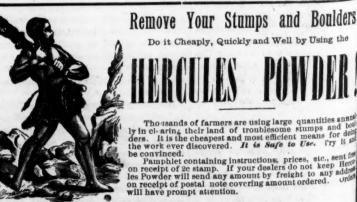
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